

The Odisha Gazette



EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 1480 CUTTACK, TUESDAY, AUGUST 6, 2024/SRAVANA 15, 1946

BHUBANESWAR DEVELOPMENT AUTHORITY

Akash Shova Building, Lok Seva Marg, Kharavela Nagar, Unit-III
Bhubaneswar

NOTIFICATION

The 6th March 2024

No. 9558/BDA— BDA/Planning (General Branch)/R&L/2023/42—The following draft of certain regulations which the Bhubaneswar Development Authority proposes to make in exercise of powers conferred under section 124 of Odisha Development Authorities Act, 1982 (Odisha Act 14 of 1982) is hereby published as required by sub-sections (1), (2) and (3) of section 125 of the said Act for information of all persons likely to be affected thereby; and the notice is hereby given that the said draft will be taken into consideration on or after the expiry of the period of fifteen days from the date of publication of this notification in the Odisha Gazette.

Any objection or suggestion which may be received by the Secretary to Bhubaneswar Development Authority from any person in respect of the said draft before expiry of the period so specified will be considered by the said Development Authority

DRAFT

CHAPTER-I PRELIMINARY

1. Short title, extent, and commencement.—

- (1) These regulations may be called as BDA (Child Friendly Public Space Design) Regulations, 2024
- (2) They shall extend to all the “development areas” which are so declared under sub-section (1) of section 3 of the Odisha Development Authorities Act, 1982.
- (3) They shall come into force on the date of their publication in the Odisha Gazette

Definition.— (1) In these regulations unless the context otherwise requires.

- i. “Act” means the Odisha Development Authorities Act, 1982 (Act 14 of 1982).
- ii. “Access aisle” means a designated space for manoeuvring a wheelchair or other mobility device when entering or exiting a vehicle, and that is immediately adjacent to a properly designated parking space for handicapped persons, on public or private property; (Illustration)
- iii. “Access” means an opportunity to approach or enter a place;
- iv. “Aesthetics” means a branch of philosophy that deals with the nature of beauty and taste, as well as the philosophy of art;
- v. “Bollard” means a short post used to prevent traffic from entering an area;
- vi. “Botts' dots” means round non-reflective raised pavement markers. Botts' dots are used, along with reflective raised pavement markers, to mark lanes on highways and arterial roads;
- vii. “Cat's eye or road stud” means a retroreflective safety device used in road marking and was the first of a range of raised pavement markers;
- viii. “Cautionary signage” indicate a level of severity less serious than warning signs or danger signs, but they still convey the message that if a hazardous situation isn't avoided, it could result in minor or moderate injury;
- ix. “Chicane” is a serpentine curve in a road, added by design rather than dictated by geography. Chicane add extra turns and are used on roads and streets to slow traffic for safety;
- x. “Colour palette” means a collection of colours;
- xi. “Critical Fall Height” means the vertical distance between the surface of the play area and the highest designated play area;
- xii. “Cycle track” means a path or road reserved for bicycles and not for motor vehicles;
- xiii. “Environment” means the surroundings or conditions in which a person, animal, or plant lives or operates;
- xiv. “Eyes on the street” means that the activity taking place in city streets that keeps the movement and security of the street intact;
- xv. “Façade” means the principal front of a building, that faces on to a street or open space;

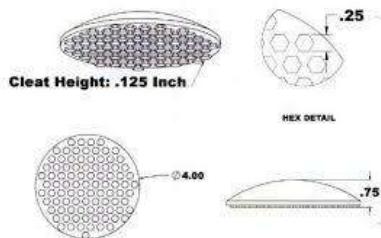


Figure 1 Typical detail of a Botts' dot



Figure 3 Typical Cat's eye installed on road marking.



Figure 4 Chicane

- xvi. “Fencing” means a barrier, railing, or other upright structure, typically of wood or wire, enclosing an area of ground to prevent or control access or escape;
- xvii. “Grading” is the work of ensuring a level base, or one with a specified slope, for a construction work such as foundation or the base course for a road or landscape/garden improvements, or surface drainage, etc;
- xviii. “Handrails” means a rail fixed to posts or a wall for people to hold on to for support’
- xix. “High mast lights” means a tall pole with lighting attached to the top pointing towards the ground, usually but not always used to light a highway or recreational field. It is used at sites that require lighting over a large area;
- xx. “Inclusive” means not excluding any of the parties or groups involved in something;
- xxi. “Road Intersection” means where two or more roads meet and or are the points of potential vehicle conflict. They are critical element of a road section;
- xxii. “Intermediate Para Transit or IPT” is a system to facilitate passenger transportation that does not necessarily follow fixed routes and schedules under the public domain. They provide two types of services: one involving trips along a more or less defined route with stops to pick up or discharge passengers on request. The other is a demand-responsive transport which can offer a door-to-door service from any origin to any destination in a service area”. This system includes the very concept of Share Auto Rickshaws;
- xxiii. “Junction” means where two or more roads meet;
- xxiv. “Kerb” means a stone edging to a pavement or raised path;
- xxv. “Landing” means a level area at the top of a staircase or between one flight of stairs and another;
- xxvi. “Landscaping” means the process of making a garden or other piece of land more attractive by altering the existing design, adding ornamental features, and planting trees and shrubs;
- xxvii. “Median or median strip” means the reserved area that separates opposing lanes of traffic on divided roadways, such as divided highways, dual carriageways, freeways, and motorways;
- xxviii. “Mounting” means a backing, setting, or support for something;
- xxix. “Multimodal street” means the capacity of the street is increased by a more balanced allocation of space between the modes. This redistribution of space allows for a variety of non-mobility activities such as seating and resting areas, bus stops, as well as trees, planting and other green infrastructure strategies;
- xxx. “NMT or Non-Motorised Transportation” includes walking and bicycling, and variants such as small-wheeled transport (cycle rickshaws, skates, skateboards, push scooters and hand carts) and wheelchair travel;
- xxxi. “Panic buttons” means a button for summoning help in an emergency;

xxxii. "Park" means a premise used for recreational/leisure activities. It may have on it related landscaping, parking facilities, public toilet, fencing etc. It will include lawns, open spaces, green etc.

xxxiii. "Parking space" means an area enclosed or unenclosed, covered or open, of sufficient size to park vehicles, together with a driveway connecting the parking space with a street or any public area and permitting ingress and egress of the vehicles; (NBC 2009)

xxxiv. "Parking lot" means an open area where cars or other vehicles may be left temporarily; a car park;

xxxv. "Passenger Pick up Drop Off (PPUDO)" means a place designated for a bus, train or any other vehicle to halt and pick up or drop off passengers;

xxxvi. "Passive area" means a recreation area is generally an undeveloped space or environmentally sensitive area that requires minimal development;

xxxvii. "PBS or Public bicycle scheme, or public bike share (PBS) scheme" means a service in which bicycles are made available for shared use to individuals on a short-term basis for a price or free. Many bike share systems allow people to borrow a bike from a "dock" and return it at another dock belonging to the same system.

xxxviii. "Pelican signals" means a type of pedestrian crossing, which features a pair of poles each with a standard set of traffic lights facing oncoming traffic, a push button and two illuminated, coloured pictograms facing the pedestrian from across the road;

xxxix. "Play spaces" means a varied and interesting physical environment that maximizes the potential for socializing, creativity, resourcefulness and challenge. A place where children feel free to play in their own way, on their own terms;

xl. "Playground" means an outdoor area provided for children to play in, especially at a school or public park;

xli. "Plaza" means a public square or similar open space amidst the built-up area;

xlii. "Primary streets" means they include 'arterial' through routes and mixed-use, multi-functional 'high streets' (at least in part along their length), providing access to properties as well as other amenities;

xliii. "Public art" means art in any media whose form, function and meaning are created for the general public through a public process. It is a specific art genre with its own professional and critical discourse;

xliv. "Public realm" means the publicly owned places and spaces that belong to and are accessible by everyone. These can include municipal streets, lanes, squares, plazas, sidewalks, trails, parks, open spaces, waterfronts, public transit systems, conservation areas, and civic buildings and institutions;

xlv. "Public toilets" means a room or small building with water closets/lavatories and washbasins that does not belong to a particular household. Rather, the toilet is available for use by the general public, customers, travellers, employees of a business, school pupils etc;

xlvi. "Ramp" means a sloping surface joining two different levels, as at the entrance or between floors of a building;

xlvii. "Recessed area" means a space, such as a niche or alcove, set back or indented;

xlviii. "Refuge island or pedestrian refuge or pedestrian island" means a small section of pavement or sidewalk, completely surrounded by asphalt or other road materials, where pedestrians can stop before finishing crossing a road;

xlix. "Right of Way (RoW)" means the legal right, established by usage or grant, to pass along a specific route through grounds or property belonging to another;

i. "Road marking" means markings which are defined as lines, patterns, words or other devices, except signs; set into, applied or attached to the carriageway or kerbs or to objects within or adjacent to the carriageway, for controlling, warning, guiding and informing the users;

ii. "Role playing" means the acting out of the part of a particular person or character;

iii. "Secondary streets" means a street or road of considerable continuity which serves, or is intended to serve, as the principal traffic way between large and separated areas or districts and which is the main means of access to the main thoroughfare system of primary streets;

liii. "Service Road" means a road/lane provided at the rear or side of a plot for service purposes.

- liv. “Shared street” means an urban design approach that minimizes the segregation between modes of road user. This is done by removing features such as kerb, road surface markings, traffic signs, and traffic lights;
- lv. “Sharrows or Shared RoW” means a sign showing a bicycle under two wide arrows that is painted on a road to show that people riding bicycles and those driving cars must share the road: Shared-lane markings or sharrows are not a substitute for bike lanes;
- lvi. “Sidewalks” means a paved path for pedestrians at the side of a road; a pavement;
- lvii. “Signage” means the design or use of signs and symbols to communicate a message. A signage also means signs collectively or being considered as a group;
- lviii. “Solid waste” means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other residential wastes, street sweepings, silt removed or collected from surface drains, horticulture waste, agriculture and diary waste, treated bio-medical waste excluding industrial waste, bio medical waste and e waste, battery waste, radioactive waste generated in the area under the local authorities and other urban entities
- lix. “Speed breakers or Speed Bumps” are the common name for a family of traffic calming devices that use vertical deflection to slow motor-vehicle traffic in order to improve safety conditions;
- lx. “Speed tables” are midblock traffic calming devices that raise the entire wheelbase of a vehicle to reduce its traffic speed. Speed tables are longer than speed humps and flat-topped, with a height of 3–3.5 inches and a length of 22 feet;
- lxi. “Steps” means a flat surface, especially one in a series, on which to place one's foot when moving from one level to another;
- lxii. “Street” any means of access, namely, highway, street, lane, pathway, alley, stairway, passageway, carriageway, footway, square, place or bridge, whether a thoroughfare or not, over which the public have a right of passage or access or have passed and had access uninterruptedly for a specified period, whether existing or proposed in any scheme and includes all bunds, channels, ditches, storm-water drains, culverts, sidewalks, traffic islands, roadside trees and hedges, retaining walls, fences, barriers and railings within the street lines (NBC 2016)
- lxiii. “Street furniture” means a collective term for objects and pieces of equipment installed along streets and roads for various purposes;
- lxiv. “Streetlight” means a light pole, lamppost, streetlamp, light standard or lamp standard that is a raised source of light on the edge of a road or path;
- lxv. “Strollers” means a chair on wheels, typically folding, in which a baby or young child can be pushed along; a pushchair;
- lxvi. “Surveillance” means the monitoring of behaviour, activities, or information for the purpose of information gathering, influencing, managing or directing;
- lxvii. “Tabletop crossing or raised pedestrian crossing” means a designated route across vehicular roadways where the pedestrian walking surface is raised above the surface of the roadway. A raised pedestrian crossing can be used at mid-block crossings and intersections. If used at intersections, the vehicular roadway is typically raised throughout the entire intersection;
- lxviii. “Tactile Paving” means a system of textured ground surface indicators found on footpaths, stairs and railway station platforms, to assist pedestrians who are vision impaired;
- lxix. “Tactile” means perceptible by touch or apparently so;
- lxx. “Toddler” means a young child who is just beginning to walk;
- lxxi. “Transit” means the action of passing through or across a place;
- lxxii. “Tread” means the top surface of a step or stair;
- lxxiii. “Tree Canopy” means the total area of the tree or trees where the leaves and outermost branches extend, also known as the “dripline”;
- lxxiv. “Unconventional or unstructured play” means a set of activities that children dream up on their own without adult intervention. This type of play rarely has predetermined goals or objectives but instead allows children to create their own rules and establish their own limits;

Ixxv. "Universal Access" means the ability of all people to have equal opportunity and access to a service or product from which they can benefit, regardless of their social class, ethnicity, ancestry or physical disabilities;

Ixxvi. "Use zone" means the surface under and around the equipment onto which a child accidentally falling from or exiting from the equipment would be expected to land;

Ixxvii. "Walking distance" means a measure of the distance from a home or neighbourhood to businesses, public transit, schools, shopping centres and other vital places. In general, walking distance is considered to be between one and 10 blocks, or around 400 to 500 meters;

Ixxviii. "Walkway" means a passage or path for walking along, especially a raised passageway connecting different sections of a building or a wide path in a park or garden;

Ixxix. "Water ATM" means automated water dispensing units, which provide communities with 24/7 safe water access;

Ixxx. "Water run off" means the flow of water occurring on the ground surface when excess rainwater, stormwater, or other sources, can no longer sufficiently rapidly infiltrate in the soil;

Ixxxi. "Way finding" means all of the ways in which people orient themselves in physical space and navigate from place to place;

Ixxxii. "Wheelchair" means a chair fitted with wheels for use as a means of transport by a person who is unable to walk as a result of illness, injury, or disability;

Ixxxiii. "Wicket gate" means a small door or gate, especially one beside or in a larger one;

Ixxxiv. "Zebra crossing" means area of road painted with broad white stripes, where vehicles must stop if pedestrians wish to cross;

Ixxxv. "Zoning" means a method of urban planning in which a tier of government divides land into areas, each of which has a set of regulations for new development that differs from other zones;

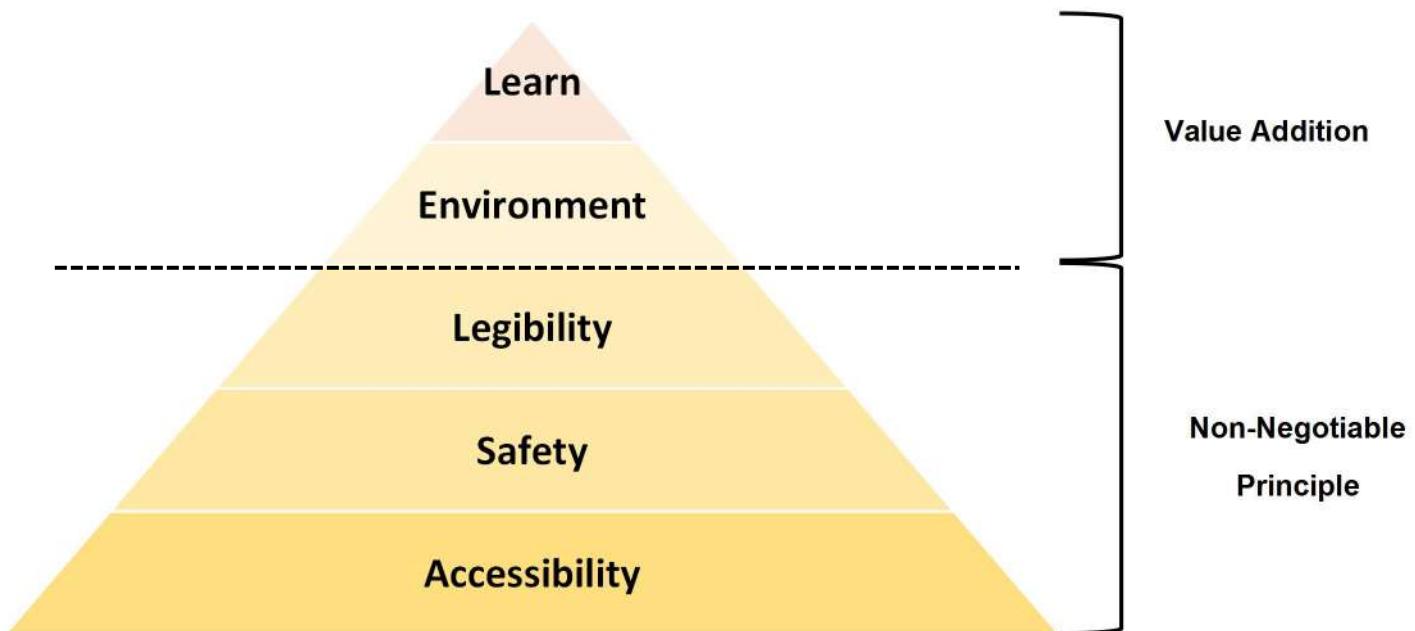
(2) Words and expressions used in these regulations, but not defined, shall have the same meaning as respectively assigned to them in the Act and any other rules/regulations and regulations framed thereunder or provided in the National Building Code of India, as amended from time to time.

3. Applicability of regulation –

- (1) Subject to the provision of the Act and rules and BDA (planning and Building standards) Regulation made there under, these regulations shall apply to all development, redevelopment as well as to the design, construction, reconstruction, addition, and alterations to –
 - a. All public spaces
 - b. All parks
 - c. Streets in the surrounding of public spaces
 - d. All playgrounds
 - e. All public building premises.
- (2) The regulation shall be applicable in cases specified under sub-regulation (1) above and the evaluation of the same shall confirm to the following criteria-
 - a. **Accessibility:** Accessibility to a space defines the users' ability to use the space with ease, without putting in a lot of effort. A child should have a provision of hindrance free access to safe and vibrant play spaces.
 - b. **Safety:** A child should be safe and feel safe at all times irrespective of the place. Public spaces should be designed in a way that children feel themselves to be a part of their surroundings and occupy 'safe spaces' that enable them to participate in activities with some independence.
 - c. **Legibility:** The city should be understandable for a child. This can be made possible via texts, signages, street murals, etc. A legible design approach provides seamless

navigational informational alternatives to the user, allowing anyone to access or utilize a space effortlessly, irrespective of their socio-cultural backgrounds, age & abilities. It also instills a sense of safety & comfort through unobstructed visibility.

- d. **Environment:** Besides, providing a welcoming, clean, safe, accessible & legible spaces, a city must offer a wide array of programs to create & foster child-friendly environments. It is necessary for the child to feel safe and acquainted to his surroundings.
- e. **Learn:** A child's outdoor experience should nurture beautiful learning experiences for a child, and they should be able to engage in active knowledge sharing with their surroundings.



(3) Categorisation of the evaluation criteria -

- a. **Non-negotiable** principles provide bare minimum and most essential requirements for a public space to be child friendly. Guidelines under these principles will ensure availability, ease of access and safety for a user especially a child, in a public space. Hence, implementation of these guidelines should be a priority.
- b. **Value Additions** will ensure that the listed public spaces are readable by every person, provide comfort and have an opportunity to learn through their surroundings. If implemented these attributes shall provide an enhanced environment to the public space user and will take the child friendly quotient of the public space to its highest.

(4) Certification of public spaces - Each public space will be certified under three categories depending on the achievements while development. The checklist for each public space will also allow the implementation agency to develop the spaces into phases as per availability of the funds and by taking into consideration other constraints. Upon achieving the status of platinum or gold, the public spaces shall be required to maintain its child friendly quotient by continuously upgrading and improving the facilities as per the guidelines.

Public Spaces with 90% - 100% Mandatory design details as per the Bhubaneswar Child Friendly Public Space Design Guidelines	PLATINUM PUBLIC SPACES
Public Spaces with 80% - 90% Mandatory design details as per the Bhubaneswar Child Friendly Public Space Design Guidelines	GOLD PUBLIC SPACES

Public Spaces with 60% - 80% Mandatory design details as per the Bhubaneswar Child Friendly Public Space Design Guidelines	SILVER PUBLIC SPACES
Rating Process:	
<p>Meeting a minimum of 60 Mandatory provisions is crucial. These provisions encompass vital criteria related to accessibility, environment, learning, legibility, and safety. Fulfilling these criteria is an essential prerequisite for public spaces, starting from the foundational Silver level, as compliance is obligatory. It is imperative that Silver-level public spaces are thoughtfully developed in alignment with child-friendly public space design guidelines. This ensures that they meet these mandatory points and lays the foundation for their progression to higher recognition levels. In case of New Public Spaces, the concerned agency/developer should aim to achieve maximum number of mandatory provisions (minimum 60%) and based on the percentage of achieved provisions, the public spaces shall be evaluated and given rating as per above table. Furthermore, when existing public spaces undergo redevelopment/retrofitting, adherence to the child-friendly public space design guidelines is vital. This commitment not only enhances the quality and satisfaction of these spaces but also makes them eligible for consideration for elevation to Gold or Platinum status.</p> <p>The Mandatory points themselves serve as a comprehensive benchmark, evaluating the overall performance of a public space across critical aspects. These criteria encompass ensuring universal accessibility, promoting a positive environmental impact, offering opportunities for learning and engagement, maintaining clear and intuitive design, and upholding rigorous safety standards. Meeting these criteria is not just a prerequisite but also a pivotal step in the journey towards elevating the status and functionality of public spaces.</p> <p>The evaluation criteria, which encompass mandatory provisions, are instrumental in assessing compliance with established standards. These criteria play a pivotal role in determining the level of achievement and recognition for a given public space.</p>	

(5) Implementation of regulations –

- a) The BDA (Child Friendly Public Space Design) Regulations, 2024 is directed to all Government and Private Agencies who are involved in planning, design, construction, approval, and maintenance of existing and new; (i) public spaces, (ii) parks, (iii) streets in the surrounding of public spaces, (iv) playground, (v) public building premises and allied activities within the jurisdiction of Bhubaneswar Development Planning Area.
- b) All the Local communities, activist groups, NGOs working in any field related to above mentioned spaces for Bhubaneswar city and all relevant stakeholders are to be encouraged to adhere to this regulation.
- c) It is recommended to refer to IRC guidelines and National Building Code of India for technical engineering aspects regarding technology and construction procedure along with these regulations.
- d) **Enforceability:** The below mentioned enforcement measures and penal actions under provision of Odisha Development Authority Act, 1982 will be applicable to the Government and Private Agencies who are involved in planning, design, construction, approval, and maintenance of; (i) public spaces, (ii) parks, (iii) streets in the surrounding of public spaces, (iv) playground, (v) public building premises and allied activities within the jurisdiction of Bhubaneswar Development Authority:
 - i. As per Section 15 – Prohibition of development without permission, of the Odisha Development Authorities Act, 1982, where the Sub Section 1 of the

Section 15 states that, “no person including a department of the Central or a State Government or a Local Authority or a Body Corporate constituted under any law shall within the development area undertake any or carry out any development in or over any land without obtaining permission in writing from the concerned authority”. In line with this it is mandatory for Government/Private agencies who are involved in construction of; (i) public spaces, (ii) parks, (iii) streets in the surrounding of public spaces, (iv) playground, (v) public building premises and allied activities within the jurisdiction of Bhubaneswar Development Authority to follow these regulations to comply with the ODA Act, 1982.

- ii. Hence as per the provisions of Section 15 of the ODA Act, and stated above, the Government and Private Agencies shall be responsible for incorporation of this regulation in the design stage itself and intimate the same to BDA before execution of the same and get an approval for the project in writing from BDA. It is mandatory for the Government and Private Agencies to achieve a minimum of “silver rating” as per the rating process prescribed under these regulations.
- iii. The approval requests by the agency or any deviations in design by the agency from these regulations due to any justifiable reason shall be placed before the DP and BP Committee of BDA. If required the Vice Chairman, BDA may opt to include field experts in the aforesaid Committee. For smaller projects, the Committee may form one or more sub-committees with relevant experts for approval.
- iv. In line of the above, and as per Section 90- Penalties, of the Odisha Development Authorities Act, 1982 where Sub-section (1) of Section 90 states that, “Any person who, whether at his own instance or at the instance of any other person or anybody (including a department of Government), undertakes or carries out development of any land in contravention of the development plan or without the permission, approval or sanction referred to in Section 15 or in contravention of any condition subject to which such permission, approval or sanction has been granted, shall on conviction, be punishable with simple imprisonment for a term, which may extend to six months, or with fine which may extend to ten thousand rupees or with both and the Court shall in such order of conviction direct that if such contravention continues after the date of the order of conviction, a fine not exceeding five hundred rupees per day during the period during which the contravention continues, shall be recovered from the person so convicted”, the Government/Private agencies who are involved in such constructions as mentioned under point i above, will be subject to bear the penalties.
- v. Including above, penalties as per Sub Section (4) of the Section 90 of the Odisha Development Authorities Act, 1982, will also be applicable on the

Government/Private agencies who are involved in such construction, if found violating these regulations.

- vi. Also, if the Government and Private Agencies who are involved in planning, design, construction, approval, and maintenance of; (i) public spaces, (ii) parks, (iii) streets in the surrounding of public spaces, (iv) playground, (v) public building premises and allied activities within the jurisdiction of Bhubaneswar Development Authority builds or construct in violation of these regulations, the construction will be considered as unauthorized and BDA will have the authority for taking corrective measures of the said construction, as per Section 91 – Removal of unauthorized development, where Sub-section (1) of Section 91 states that, “Where any development has been commenced or is being carried on or has been, completed in contravention of the development plan or without the permission, approval or sanction referred to in section 15 or in contravention of any condition subject to which such permission, approval or sanction has been granted or any development deemed to be a development undertaken, carried out or completed without a permission as referred to in Section 15 under Clause (b-1) of Sub-section (2) of Section 128 any officer of the Authority empowered by it in this behalf, may in addition to any prosecution that may be instituted under this Act, make an order directing that such development shall be removed by demolition, falling or otherwise or secured by sealing by the owner thereof or by the person at whose instance the development has been commenced or is being carried out or has been completed, within such period not being less than five days and more than fifteen days from the date on which a copy of the order of removal, with a brief statement of the reasons therefore, has been delivered to the owner or that person as may be specified in the order and on his failure to comply with the order, the officer of the Authority may remove or cause to be removed the development or seal or cause to be sealed such development and the expenses incurred therefore all be recovered from the owner or the person at whose instance the development was commenced or was being carried out or was completed as arrears of land revenue”.
- vii. For Compounding of Offences (offences as per above), Government/Private agencies who are involved in such construction can use the provisions under Section 98 – Compounding of Offences, where Sub-section (I) of Section 98 states that, “The Authority or any person authorized by it in this behalf by general or special order, may- (a) institute, defend or withdraw from any legal proceeding under this Act or any rule made thereunder, (b) either before or after the institution of the proceedings, compound any offence made punishable under this Act or any rule made thereunder, and (c) admit, compromise or withdraw any claim made under the Act or any rule made thereunder”.

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GENERAL GUIDELINES FOR UNIVERSAL ACCESSIBILITY IN PUBLIC SPACES

Chapter II -General Guidelines for Universal Accessibility in Public Spaces

4.In all public spaces the following universal accessible guidelines shall be applicable as mentioned below -

- (1) General design guidelines for differently abled shall be designed as per the following guidelines-
 - i. The minimum space required for accommodating a single, stationary wheelchair and occupant shall be 900 mm × 1200 mm.
 - ii. In addition to above, the minimum clear space for a wheelchair to turn shall be 1500 mm, however, wherever possible space shall be 1800 mm and it is ideal to provide 2000 mm.
 - iii. Protruding objects, such as directional signs, tree branches, wires, guy ropes, public telephone booths, benches and ornamental fixtures shall be installed with consideration of the range of the white cane (about 1.20 m) of a person with vision impairment.
 - iv. Walkways, halls, corridors, passageways, aisles, or other circulations spaces shall have clear headroom of at least 2.40m to minimize the risk of accidents.
 - v. The range of reach (forward and side; with or without obstruction) of a wheelchair user provided in National Building Code, Vol.1 shall be taken into consideration.
 - vi. Map and information panels along pathways shall be placed at a height between 900 mm and 1800 mm. The smallest letter shall not be less than 15 mm.
 - vii. Height of door handles shall be 800mm to 1100mm.
 - viii. Minimum width of the entrance shall be 900 mm.
- (2) Walkways for universal accessibility in public spaces shall be designed as per the following guidelines-
 - i. Walkways shall be smooth, hard and have levelled surface suitable for walking and wheeling. Irregular surfaces as cobble stones, coarsely exposed aggregate concrete, bricks, etc, often cause bumpy rides and shall be avoided.
 - ii. The walkway shall not have a gradient exceeding 1:20. If the slope or any part of a walkway on an accessible route to a building exceeds 1:20, it shall be designed and constructed as a ramp.
 - iii. Where pathway meets the road, a kerb shall be provided.
 - iv. When walkways exceed 60 m in length, it is desirable to provide rest area adjacent to the walk at convenient intervals of 30 m in the form of benches/resting seats.
 - v. Gratings and manholes should be avoided in walkways.
 - vi. Walks or driveways shall have a non-slip surface. Care shall be taken to ensure that adjacent surface materials do not display different slip resistance characteristics, particularly at the edges of changes of level or gradients.
- (3) Seating for universal accessibility in public spaces shall be designed as per the following guidelines-
 - i. Seat height shall be between 450 mm and 500 mm, and the seating shall have a backrest and arm rests at 700 mm height.
 - ii. A colour contrast should be provided around the seating area for ease of identification by persons with low vision.

- iii. Seat height should be kept at 0.45 m to 0.50 m in height.
- iv. Length of the bench should be minimum 1.8 m.
- v. The arm heights of the bench should be proportionate to the back height of the bench.
- vi. The back of the bench should be firm with an upper edge of no more than 0.45 m.
- vii. Encourage a longer bench of 3 m or more for social interaction.
- viii. Add lower seating for children.
- ix. Provide a good view of the surrounding activity.
- x. The bench should not face each other directly unless it is for social interaction purposes.
- xi. Benches should not be arranged back-to-back.
- xii. Benches should be placed to allow space for wheelchairs to be parked in the front or besides the bench.
- xiii. Choice to sit in sun or shade should be provided to the users.
- xiv. Consider using various shaped dustbins, benches like animal, fruits, cartoon characters etc. to make it a unique attraction.

(4) Kerb ramps for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. Kerb ramps shall be provided at pedestrian crossings and at each end of the footpath of a private street or access road.
- ii. Kerb ramps shall be provided where the vertical rise is less than 150 mm.
 - a. They shall have a slip-resistant surface.
 - b. They shall avoid raised traction strips to reduce the hazard to everyone.
 - c. They shall be designed not to allow water accumulating on the walking surface.
 - d. Handrails may not be provided with kerb ramps.
 - e. They shall not project into the road surface.
 - f. They shall be so located and protected to prevent obstruction by parked vehicles.
 - g. They shall be free from any obstruction such as signposts, traffic lights, etc.
 - h. They shall not encroach into a roadway, as it is dangerous for users and obstructive for vehicles.
 - i. They shall be so located to enable users to have an unobstructed view of traffic approaching from any direction.
 - j. They shall be provided with adequate visual and tactile warning.
 - k. Tactile Ground Surface Indicator (warning type) shall be provided to notify the presence of traffic and shall have a minimum luminous contrast of 70 percent with the adjoining surfaces for the elderly, caregivers and persons with visual impairment.
- iii. The gradient of a kerb ramp shall not be steeper than 1:12.
- iv. The kerb ramp shall not be less than 1200 mm in width. It shall provide a clearance of at least 800 mm at the back of the kerb ramp on the footpath.
- v. The kerb ramp should be in close proximity to the designated accessible parking area connecting the accessible path of travel to the main entrance.

(5) Tactile ground surface indicators for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. Install one/two rows of tactile guiding blocks along the entire length of the proposed accessible route. Care shall be taken to ensure that there are no obstacles, such as trees, poles, or uneven surfaces, along the route traversed by the guiding blocks.
- ii. There shall be clear headroom of at least 2100 mm height above the tactile guiding blocks, free of protruding objects such as overhanging tree branches and signage, along the entire length of the walk.
- iii. Two rows of tactile warning tiles shall be installed across the entire width of the designated accessible pathway, before intersections, building entrances, level changes, obstacles such as trees, and each time the walkway changes direction.
- iv. Warning blocks shall be placed 300 mm from the beginning and end of the ramps and stairs, at landings and entrance to any door.
- v. TGSI shall be installed at following places:
 - a.In open space to orient persons with vision impairment;
 - b.In front of an area where traffic is present;
 - c.In front of an entrance/exit to and from a ramp,
 - d.staircase or multi-level crossing facility;
 - e.Entrances/exits at public transport terminals or boarding areas;
 - f.Sidewalk/footpath section of an approach road to a building; and
 - g.From a public facility to the nearest public transport station.

(6) Barriers and hazards for universal accessibility in public spaces

- i. Unavoidable free-standing posts or columns within access routes on pathways shall leave at least unobstructed walking width of 1000 mm and be clearly marked with visual indicators.
- ii. Access panels in walls or manholes in walks, may be extremely hazardous, particularly when in use/ open, and shall be avoided. When manholes or access panels are open and in use, or when an open excavation exists on a site, particularly when it is in proximity of normal pedestrian traffic, barricades shall be placed on all open sides, and warning devices shall be installed.

(7) Passenger pick up drop off (PPUDO) for universal accessibility in public spaces

- i. Space should be provided for passenger drop off points for taxis, public transport and also for large vehicles such as vans, etc., as near as possible to the main accessible entrance. Vehicle drop-off areas should be a minimum of 9000 mm in length, have a minimum width of 3600 mm and be served by a kerb ramp.
- ii. At least one accessible route leading to an accessible entrance of the building shall be provided from the alighting and boarding point of taxi stands and car park lots for people with disabilities.
- iii. The accessible entrance, if different from the main entrance, shall be located adjacent to the main entrance and not at the rear of the building. The accessible entrance shall be clearly signed and easy to locate.

(8) Doors and gates for universal accessibility in public spaces

- i. Wherever revolving doors or turnstiles are installed, they shall be supplemented with an alternate side-hung (swing type) door with 900 mm minimum clear opening width.
- ii. Automatic doors shall have a push button system to open them.

(9) Ramps for universal accessibility in public spaces

- i. Ramps should not ideally connect straight to doors as wheelchair users need a levelled platform at the end of the ramp to manoeuvre and negotiate opening the door.
- ii. Single row of tactile warning blocks (TGSI) shall be placed at the beginning and end of each ramp. This shall be placed 300 mm before the beginning and end of each ramp run to indicate the level change to visually impaired persons.
- iii. The maximum gradient of the ramp shall be kept 1:12 except for when the level difference is more than 3000 mm, the gradient of the slope shall be 1:20.
- iv. The ramp width shall be 1.2 - 1.8 m, the latter is preferred to accommodate both an adult with a pram and a small child walking beside or two wheelchairs side by side.
- v. The minimum clear width of a ramp shall increase correspondingly as the level difference addressed by the ramp increases.
- vi. Ramps and landing surfaces shall be non-glary, smooth, level, even and slip resistant even when wet. Outdoor ramps and their surface shall be designed to prevent water from accumulating on the walking surfaces. The surface finish shall be hard and suitable for the volume of traffic that the ramp is likely to experience.

(10) Landings for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. An end landing shall be provided at the bottom and the top of a sloped path, a stepped path, or a ramp and where the run changes direction.

(11) Steps or stairs for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. The materials selected for the surface finish of the stairs shall be firm and slip resistant especially if surfaces are likely to become wet due to location or use, or if spillage occurs. Slippery surfaces like granite, glazed tiles shall be avoided.
- ii. The stairs landing shall be minimum 1500 mm deep.
- iii. Steps shall be of a consistent height and depth throughout the staircase.
- iv. Projecting nosing and open stairs shall not be provided to minimize the risk of stumbling.
- v. The surface width of a stepped path and stair shall be not less than 1.2 m.

(12) Handrails for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. For stepped path, stairs and ramps, handrails shall meet the following requirements
 - a. A second handrail, with a lower profile than the first one, shall be provided.
The height to the top of the second handrail should be between 650 mm and 750 mm above the surface of a ramp, the pitch line of a stair, and the surface of a landing.
 - b. There shall be enough distance between the two handrails.
 - c. They shall be provided on both the sides;
 - d. They shall be continuous, even at the landings.
 - e. They shall extend at least 300 mm beyond the first and last nosing.
 - f. A handrail shall not project into a transverse circulation path unless it is continuous and intended to form part of the guidance along that path.

g. The end of the horizontal extension should be turned towards the wall on the closed side of the ramp or stairs or be turned down and terminate at the floor or ground level.

h. They shall have a minimum clear space of 50 mm from the walls;

i. The height to the top of a handrail shall be between 850 mm and 950 mm above the surface of a ramp, the pitch line of a stair, and the surface of a landing.

(13) Drinking water facility for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. Wall/Post-mounted cantilevered units shall have a clear floor space of at least 900 mm × 1200 mm.
- ii. The front edge of the unit shall extend 430-480 mm from the wall. It shall have a clear knee space between the bottom of the apron/ equipment and floor or ground of at least 900 mm wide, 200 mm deep extending from the front edge of the equipment to back towards the wall, and 700 mm high. It shall have a toe space not less than 900 mm wide, 300 mm high, extending from the back wall to a maximum of 150 mm.
- iii. Freestanding or built-in-drinking water units not having a clear space under them shall have a clear floor space of at least 1 200 mm wide × 900 mm in front of the unit.
- iv. Spout heights should be between 800-900 mm, measured from the floor to the spout outlet. The maximum distance of the spout from the front edge of the drinking water facility shall be 125 mm. There shall be water glass provision; a minimum 100 mm space below the spout outlet shall be provided to allow for the insertion of a cup or glass.
- v. Wall-mounted drinking water provision in an alcove is preferred because it does not create a hazard for persons with visual impairments. The provision of two drinking facilities at different heights are very convenient for standing adults, people in wheelchairs and children. Where only one is provided, it shall be at a height of 700 mm above floor level.
- vi. Quality control and monitoring system should be incorporated. The pipes and water tank should be regularly cleaned and disinfected at regular intervals.
- vii. Out of two outlets, one of the outlets of water ATMs should be placed at 60cm height for ease of use for children and wheel chaired persons.
- viii. If the water ATM is placed on a platform or pedestal, a minimum space of 1.5mX1.5m should be provided in front of it for manuring of wheelchair and stroller.

(14) Toilet rooms and sanitary rooms shall be designed as per the following guidelines-

- i. Design specifications for all public toilets shall be referred from National Building Code, Vol. 1.

a. Male section shall have one urinal with support grab bars for ambulant disabled and at least one urinal for children at a lower height;

b. Both male and female section shall have one WC for ambulant disabled.

c. One Type A unisex accessible toilet room with independent entrance; and

d. Depending on footfall, one Type B accessible toilet in both male and female toilet groups.

e. The accessible toilet room shall be located as close as possible to the entrance/ reception/ waiting area of the building and should be easy to find. It should not be so located that it compromises the privacy of users.

- f. Public toilets should be designed to minimize hand contact as far as possible for hygienic reasons. Electronic products for toilets such as flush valves and faucets require minimum maintenance but offer enhanced operations that promote sanitation and perceived cleanliness because of hands-free operation.
- g. Clear signage should be designated for each gender of required public toilet facilities. The location of the signs should be near the entrance to each toilet facility and clearly displayed at noticeable locations in main traffic passageways to direct the public to the toilets.
- h. Dustbins with covers operated without hand contact e.g., foot pedal or electronic motion sensor devices should also be provided near urinals for users who need to wash and clean up after urinating for hygienic purposes.
- i. In both male and female toilets, a minimum of 1 baby seat should be provided in the WC cubicle. Signage should be displayed on cubicle doors to indicate the presence of a baby seat.
- j. Diaper changing stations, benches or tables should be placed in both male and female toilets where families may utilize the facility.
- k. In female toilet, a minimum of 1 urinal with modesty board should be provided for male children accompanied by their female parents/guardians.
- l. In both male and female toilets, a minimum of 1 WC for children should be provided.
- m. in the WC cubicle. Alternatively, dual adult and child seat cover can be provided for adult WCs.
- n. Signages should be displayed on cubicle doors to indicate sit or squat-type WCs. This facilitates the public users to queue up in front of the cubicle for their preferred type of WCs when the toilet is under heavy usage.
- o. Introducing plants which can be easily maintained inside the toilets as well as surrounding the public toilets.
- p. Placing of wall pictures and illuminated with delicate lighting. The pictures or wallpapers should be waterproof (e.g., made of impervious material).
- q. Placing of ornaments or sculptures at the 'dead' corners of the toilets.
- r. An assistance alarm, which can be reached from changing or shower seats, from the WC and by a person lying on the floor, shall be provided in all accessible toilets and accessible sanitary rooms. This alarm should be connected to an emergency help point, or where a member of staff can assist.

(15) Lactation room for universal accessibility in public spaces shall be designed as per the following guidelines-

- i. The lactation room size should be minimum 2000mm X 2000mm as it allows for a 1500 mm radius circle with 600 mm deep counters on two walls. Other configurations such as 3000mm X 1500mm can also work. The facility should have comfortable seating and washing area and a changing platform in the booth or pod.
- ii. The walls of the lactation room should reach up to the structure above to minimize sound transmission over them into adjacent spaces. The room should be dim lit and ventilated while maintaining privacy for the user. User-operated deadbolt and occupied tag should also be provided.
- iii. An extended lactation room that has a small waiting and seating area, television, counter for baby items purchase and separate lactation rooms can be provided in the city level parks.

CHILD FRIENDLY DESIGN GUIDELINES FOR PARKS

This chapter prescribes all design specifications and recommendations required to develop, improve or design a child friendly park.

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CHAPTER – III CHILD FRIENDLY DESIGN GUIDELINES FOR PARKS

5. Guidelines for parks shall be under three categories-

i. **Approach to the park**
comprises of immediate surrounding while reaching the park(refer figure 5)



Figure 4 Approach to the park

ii. **Park entrance** comprises of the park entrance and entrance zone(the recessed area in front of the park) (refer figure 5)



Figure 5 Park entrance

iii. **Within the park** will comprise of space inside the park (refer figure 6)



Figure 6 Within the park

6. Accessibility provision in parks shall be done as following –

i. Accessibility provision for approach to the park shall adhere to the standards as prescribed in Table No.-1 below-

Table No.-1: Accessibility provision for approach to the park

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Ease of access			
i.	Tabletop crossings on major junctions within 200 m of the park and speed tables/ speed breakers on the streets adjacent to the park entry (within 10 m) shall be provided which are connected to the sidewalks.	Annexure 1, Part 1.A Guideline: B3 Exhibit 4 Pg. 62	PBI	M
ii.	If the streets adjacent to the park are less than 12 m or equivalent the street right of way (RoW) shall be designed as a shared street.	Annexure 1, Part 1.A Guideline B4 Pg.62	PBI	M
2	Parking management			
i.	A dedicated Passenger Pick up Drop Off Point (PPUDO) for each park entrance shall be clearly demarcated within 20 - 50 m of the park entrance(s)	Annexure 1, Part 1.A Guideline C1 Exhibit 6 Pg.64	PBI	M
ii.	The parking lot as well as Passenger Pick up Drop Off Point (PPUDO) shall be well connected to the pedestrian	Annexure 1 Part 1.A	PI	M

	walkways leading to the park entry without any hindrance or discontinuity. Both steps and ramps shall be provided wherever necessary to provide universal access.	Guideline C2 Exhibit 5, 6 Pg.64		
iii.	At least 3% of the dedicated-on street parking for park shall be reserved for strollers/ people with disability	Annexure 1, Part 1.A Guideline C3 Exhibit 5 Pg.64	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers whether the provision is mandatory denoted by 'M' or optional denoted by 'O'</p>				
<p>ii. Accessibility provision for park entrance shall adhere to the standards as prescribed in Table No.-2 below-</p>				

Table No.- 2: Accessibility provision for park entrance

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Entrance organization			
i.	A minimum of 1.8 m recessed area/plaza between the park entry and the street shall be provided.	Annexure 1, Part 1.A Guideline D1, Exhibit 7,8 Image 15 Pg.66. Table 1.1	PBI	M
ii.	The entrance plaza shall be levelled, non-slip and continuous, and shall be provided with tactile orientation.	Annexure 1 Part 1.A Guideline: D2 Pg. 66	PI	M
iii.	The park entry shall be visible from all sides of the street	Annexure 1 Part 1.A Guideline: D3 Pg. 66	PBI	M
iv.	Provision of widened openings or entrances (up to 4 m) for a larger group of 15 – 20 children shall be provided in community, city level and district level parks.	Annexure 1 Part 1.A Guideline: D5 Pg. 66	PBI	M
v.	The park entrance is mandated to be universally accessible design guidelines for which shall be adapted from <i>BDA Child Friendly Public Space GENERAL Design Regulations, 2024</i>	Refer to Chapter III. General guidelines (Applicable to all public spaces) 8. -9. Pg. 16 of this	PI	M

		<i>document</i>		
2	Gate design			
	The gate design of the park should allow visibility inside the park from the street or entrance	Annexure 1 Part 1.A Guideline: F1 Pg. 72	PBI	M
	Minimum height of the gate shall be about 1.4 m	Annexure 1 Part 1.A Guideline: F2 Pg. 72 Exhibit 12	PI	M
	The gate handle or latch shall be installed at an accessible height for reaching, between 800 mm and 1100 mm above floor level.	Annexure 1 Part 1.A Guideline: F3 Pg. 72	PI	M
	Entrances shall have a clear minimum width of 1.8m.	Annexure 1 Part 1.A Guideline: F6 Pg. 72	PI	M
	The swing of the gate shall open all the way onto the open space.	Annexure 1 Part 1.A Guideline: F7 Pg. 72	PI	M
	Wicket gates as rear entry points shall be provided	Annexure 1 Part 1.A Guideline: F8 Pg. 72	PI	M
	Drainage grill or cattle catchers shall not be placed in front of the park entrances.	Annexure 1 Part 1.A Guideline: F9 Pg. 72	PI	M
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

iii. Accessibility provision within the park shall adhere to the standards as prescribed in Table No.-3 below-

S.No.	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
1	Walkways			
	The entrances shall directly connect to a continuous dedicated stroller-friendly walkway inside public spaces	Annexure 1 Part 1.A	PBI	M

	such as parks, playgrounds, and institutions	Guideline: G1 Pg. 74 Exhibit: 14		
	The walkway shall be at least 1.8 m in width.	Annexure 1 Part 1.A Guideline: G2 Pg. 74 Image: 24	PI	M
	The walkway shall be paved, non-slippery, levelled and shall have a gradual slope towards the drain.	Annexure 1 Part 1.A Guideline: G3 Pg. 74	PI	M
	Tactile pavement shall be present on the walkway intersections, level differences and on the entrance of every zone within the park. The tactile paver shall be in the same level as the pavement of the walkway for seamless transition.	Annexure 1 Part 1.A Guideline: G4 Pg. 74	PBI	M
2	Public convenience and utilities			
	All the amenities such as public toilets, drinking water facility, help desk shall be mandated to be universally accessible design specifications for which shall be adapted from <i>BDA Child Friendly Public Space GENERAL Design Regulations, 2024</i>	Refer to Chapter III. General guidelines (Applicable to all public spaces)13 and 14 Pg. 17,18 of this document	PBI	M
	Provide garbage bins beside benches, resting points and along frequently used pedestrian routes in the park.	Annexure 1 Part 1.A Guideline: H10 Pg. 77	PI	M
	Provide adequate garbage bins in high activity zones of the park.	Annexure 1 Part 1.A Guideline: H11 Pg. 77	PI	M
	Careful selection of dustbins in the park which consists of bins not more than 1 m in height along with the regular dustbins.	Annexure 1 Part 1.A Guideline: H12 Pg. 77	PBI	M
	The location of the benches and seating shall not hamper the overall circulation within the park.	Annexure 1 Part 1.A Guideline: H14 Pg. 77	PBI	M
3	Activity areas			
	The site shall have proper drainage to avoid water pooling under equipment. Steep slopes shall not be constructed.	Annexure 1 Part 1.A Guideline: I1 Pg. 80	PBI	M

	The play area within the park shall be accessible and inclusive to children of abilities. The design specifications shall be adapted from <i>BDA Child Friendly Public Space GENERAL Design Regulations, 2024</i>	Annexure 1 Part 1.A Guideline: I2 Pg. 80 Chapter III. General guidelines (Applicable to all public spaces)1. Pg. 13 of this document	PBI	M
	Playground surfacing shall extend at least 1.8 m beyond the equipment.	Annexure 1 Part 1.A Guideline: I3 Pg. 80	PI	M
	At least three different play objects shall be required for each play area within the park.	Annexure 1 Part 1.A Guideline: I6 Pg. 80	PBI	M
	Areas with exposed utilities, steep slopes, water body etc. shall be strategically located away from the children's play area.	Annexure 1 Part 1.A Guideline: I7 Pg. 80	PBI	M
	Areas such as flower gardens which needs visual access and not physical access shall be demarcated with the help of bollards or other barriers which prevent physical access but not visual. Walkways shall not be provided inside such areas	Annexure 1 Part 1.A Guideline: I8 Pg. 80	PBI	M
	Ensure that the yoga platform is well connected or easily accessible to all the pathways	Annexure 1 Part 1.A Guideline: I10 Pg. 81	PBI	M
	Ensure that yoga platform is easily accessible for all age groups and all abilities regarding platform entry, surfacing. Provision of a ramp or steps shall be a priority in case of raised platform for Yoga <i>Pindy</i> .	Annexure 1 Part 1.A Guideline: I11 Pg. 81	PBI	M
	If proposed, Yoga <i>Pindy</i> shall be designed on the same level as the lawn area.	Annexure 1 Part 1.A Guideline: I12 Pg. 81	PI	M
	Provide minimum 0.5 acres of skating area and ensure it is accessible for all age group regarding space, surface, and pathway.	Annexure 1 Part 1.A Guideline: I13 Pg. 81	PI	M
	Provide a pedestrian path linking the skate rink to the park's primary circulation path.	Annexure 1 Part 1.A Guideline: I14 Pg. 81	PI	M
	The open gym shall be in a high activity zone within the park and the area shall be unobstructed by trees and easily accessible from all the pathways.	Annexure 1 Part 1.A Guideline: I15 Pg. 81	PBI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

7. Safety provision in parks shall be done as following –

- i. Safety provision for approach to the park shall adhere to the standards as prescribed in Table No.-4 below-

Table No.- 4: Provision of safety for approach to the park

S.No.	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Traffic calming measures			
	Local streets with a carriageway of less than 6 m, around the park, shall be converted into a shared street. Selection of material as per the specifications for shared streets.	Annexure 1 Part 1.B Guideline: A3 Pg. 86	PBI	M
	The streets with no central median, around the park, shall be a No overtaking/ Passing Zone.	Annexure 1 Part 1.B Guideline: A7 Pg. 88, Exhibit 20 Pg. 89	PBI	M
	Installation of Pelican Signals as well as Audio Signals at major crossroads, junctions and tabletop crossings near parks.	Annexure 1 Part 1.B Guideline: A9 Pg. 88, Exhibit 20 Image 36 Pg. 89	PBI	M
	Safety signage around the parks on major junctions, crossings and building entrances shall be mandatory.	Annexure 1 Part 1.B Guideline: A10 Pg. 88-89 Exhibit 20 Image 37	PBI	M
	If there is a vacant land parcel ¹ or a dead space within 100 m of the park entrance, it shall be converted into a resting space or an active space.	Annexure 1 Part 1.B Guideline: A11	PBI	M

¹ If the vacant land parcel is under government ownership, the authority will align the guideline with existing plans for the parcel. If the land parcel falls under the category of a prime real estate land, the guideline shall not be applicable. In case of private land parcel, the land shall be acquired after prior discussion with the land owner and on the basis of an incentive model.

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Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. Safety provision for park entrance shall adhere to the standards as prescribed in Table No.-5 below-

Table No.- 5: Safety provision for park entrance

S.No.	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Control points			
	The park entry should be located strategically while considering the following points while designing the park. <ul style="list-style-type: none"> a) Consider where most pedestrians will be coming from and how they will arrive at the playground. Position gates and entrances accordingly b) Placing the park entrance on a residential or a local street will be the most beneficial to the residents in terms of both safety and accessibility. If the park is being developed in a commercial/ institutional area, the entrance of the park shall be on a busy street to ensure eyes on the street. 	Annexure 1 Part 1.B Guideline: B1 Pg. 90-91 Exhibit 21 Image 38	PBI	M
	The number of entry points to a housing area or a neighbourhood level park shall be limited to 3 no. s, with only 1 gate acting as a primary entry point.	Annexure 1 Part 1.B Guideline: B2 Pg. 90 Table: 1.3	PI	O
	A CCTV camera shall be installed at all the entry and exit points of the park and must be monitored live.	Annexure 1 Part 1.B Guideline: B3 Pg. 90 Image 39	PI	M
	Installation of panic buttons near the ramp access or near the entrances. It shall be at a height of 1 m or below for a child or a person with disability to be able to use it easily in case of emergencies.	Annexure 1 Part 1.B Guideline: B4 Pg. 90	PI	M
	Floor markers shall show exit routes in case of emergencies.	Annexure 1 Part 1.B Guideline: B5 Pg. 90	PI	M

2	Fencing			
	To retain a visual connection between the park and the street, the fencing shall be kept at 1.2 m to 1.5 m in height. Visually permeable fences are the most preferred. The park shall be fenced on all sides.	Annexure 1 Part 1.B Guideline: C1 Pg. 92 Image: 41	PI	M
	The fence shall not have a pointed spike at the end or rusted surface.	Annexure 1 Part 1.B Guideline: C2 Pg. 92 Image: 42	PI	M
	All the major sides of the park shall be fenced but with enough visibility outside and inside the park.	Annexure 1 Part 1.B Guideline: C3 Pg. 92	PBI	M
	The plaza/ recessed area before the park entrance shall be well paved, well-lit and shall use non-skid material.	Annexure 1 Part 1.B Guideline: D1 Pg. 93	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Provision of safety for inside the park shall adhere to the standards as prescribed in Table No.-6 below-

Table No.-6: Provision of safety inside the park

S.No.	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Walkways			
	Solid walls shall not be constructed along the walkways within the park.	Annexure 1 Part 1.B Guideline: E2 Pg. 94 Exhibit: 22	PBI	M
	Low planting, not exceeding 0.5 meters in height, shall be planted along routes.	Annexure 1 Part 1.B Guideline: E3 Pg. 94 Image: 45	PI	M
	The walkways shall be well-lit. Lighting specifications and lux levels shall be referred from the Part 1.C Legibility in Annexure 1.	Annexure 1 Part 1.B Guideline: E4 Pg. 94	PBI	M
	The material used for the pavement shall be anti-skid, levelled and shall be lined with tactile marker in case of a	Annexure 1 Part 1.B	PI	M

	level difference. The material of the pavement shall not hinder the movement of a stroller or a wheelchair.	Guideline: E5 Pg. 94		
2	Children play areas			
	The play area within the park shall be fenced from all the side or shall be lined with hedges. Ensure unobstructed sightlines for supervisors.	Annexure 1 Part 1.B Guideline: F1 Pg. 95 Image: 46 Exhibit: 23 (Pg.97)	PI	M
	Combine playing objects with the adequate floor covering.	Annexure 1 Part 1.B Guideline: F3 Pg. 95 Image: 47-48 (pg.97)	PI	M
	Maximum allowable height of the play equipment of 1.2 m to 1.5m shall be considered.	Annexure 1 Part 1.B Guideline: F4 Pg. 95	PI	M
	Surfacing shall be at least 0.3m deep and extend at least 1.8m in all directions around stationary equipment and depending on the height of the equipment, surfacing may extend farther than 1.8m'.	Annexure 1 Part 1.B Guideline: F5 Pg. 95 Table 1.4 (Pg.97)	PI	M
	The critical fall height shall be 110 cm min and 300 cm maximum. The thickness of the tile will vary according to the fall height.	Annexure 1 Part 1.B Guideline: F6 Pg. 95 Image: 46 Exhibit 24 (Pg.97)	PI	M
	Provide minimum 0.2 m space for swings with limited sideway motion	Annexure 1 Part 1.B Guideline: F7 Pg. 98-99 Exhibit 25 Table 1.5	PI	M
	Shaded spots shall be provided wherever caregivers need to wait and have good sightlines of play areas.	Annexure 1 Part 1.B Guideline: F9 Pg. 98	PI	M
	Ensure ground to be flat, levelled and evenly surfaced.	Annexure 1 Part 1.B Guideline: F10 Pg. 98	PI	M
	Ensure play surface to be greater than the actual play structure for safe landing	Annexure 1 Part 1.B Guideline: F11 Pg. 98	PI	M

	Potential hazard in the area like low hanging branches, utility lines shall not be close to any play equipment, or the children play area	Annexure 1 Part 1.B Guideline: F12 Pg. 98	PI	M
	Slip-resistant and skid-resistant pavers shall be used	Annexure 1 Part 1.B Guideline: F14 Pg. 98	PI	M
	CCTV shall be installed in the children's play area.	Annexure 1 Part 1.B Guideline: F16 Pg. 98	PI	M
	Platforms higher than 30 inches shall have guardrails or barriers. Ensure that no edge or surface is sharp or rusted.	Annexure 1 Part 1.B Guideline: F17 Pg. 98	PI	M
3	Other areas such as yoga pindy, amphitheatre, skating rink			
	Areas shall be labelled for age-appropriateness.	Annexure 1 Part 1.B Guideline: G1 Pg. 100 Table 1.6 Image 52	PI	M
	Ensure slip resistant, heat resistant, durable and smooth surfacing for open gyms, yoga platform, skating rink.	Annexure 1 Part 1.B Guideline: G4 Pg. 100	PI	M
	Provide 5 feet minimum tubular steel (non-climbable) perimeter fence enclosing the entire skate area.	Annexure 1 Part 1.B Guideline: G5 Pg. 100	PI	M
	Skate elements which includes complexity and degree of difficulty shall only be provided based on the community needs and desires.	Annexure 1 Part 1.B Guideline: G7 Pg. 100	PBI	O
	Ensure flush transition from one surfacing to another.	Annexure 1 Part 1.B Guideline: G8 Pg. 100	PBI	M
4	Landscape			
	Avoid planting poisonous, thorny and skin irritants vegetation species in parks. Such plants should be planted within closed areas.	Annexure 1 Part 1.B Guideline: H1 Pg. 101 Table 1.7	PI	M
5	Passive areas			
	Single stepped level difference in passive areas shall not be constructed.	Annexure 1 Part 1.B	PBI	M

		Guideline: I2 Pg. 102		
	Passive areas shall be well lit and shall be clearly visible from distance.	Annexure 1 Part 1.B Guideline: I3 Pg. 102	PBI	M
	Plant larger canopy evergreen/flowering trees with clear height of 2.5 m to provide natural shading with natural surveillance.	Annexure 1 Part 1.B Guideline: I4 Pg. 102	PI	M
	Appropriate fencing around the passive areas which act as a barrier between the child and the area. The fence should be 1 m or more in height.	Annexure 1 Part 1.B Guideline: I5 Pg. 102 Image: 53	PI	M
6	Public convenience			
	Ensure that the pipelines are kept clean throughout the year to prevent from contamination.	Annexure 1 Part 1.B Guideline: J1 Pg. 102	PI	M
	Ensure proper cleaning and maintenance in and around the drinking water fountain to avoid water logging.	Annexure 1 Part 1.B Guideline: J2 Pg. 102	PI	M
	The restrooms shall be planned close to the activity areas	Annexure 1 Part 1.B Guideline: J4 Pg. 102	PBI	M
	All toilets shall have adequate water supply, shall be well lit, clean and regularly maintained.	Annexure 1 Part 1.B Guideline: J5 Pg. 102 Image: 54	PBI	M
	Place kiosk / restaurant close to the entrance or activity areas.	Annexure 1 Part 1.B Guideline: J7 Pg. 102	PI	M
	Ensure that the kiosk is universally accessible through provision of height specific counter	Annexure 1 Part 1.B Guideline: J8 Pg. 102	PI	M
<p>Note:</p> <ul style="list-style-type: none"> (i) The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI' (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O' 				

8. Legibility provision in parks shall be done as following –

- i. Legibility provision for approach to the park shall adhere to the standards as prescribed in Table No.-7 below-

Table No.- 7: Legibility provision for approach to the Park

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Signage Cautionary Signage <ul style="list-style-type: none"> a) Location: These signages shall be installed at strategic locations such as landmarks or any public spaces. For example, “Go slow, Park entrance ahead” or “Silent Zone ahead” shall be installed on either side of the street at about 50 m distance from the entrance gate to provide enough time for a vehicle to bring vehicle in permissible speed limits. The signage shall be mounted on a single post on the left-hand side of the moving traffic. b) Information of signage: The signage shall show cautionary text or symbol, distance and/or directional arrows. c) Representation: For traffic signages, IRC 067: Code of Practice for Road Signs shall be followed. Use of universal symbols and pictorial representation shall be encouraged. d) Multilingual signage board, both in English and Odia language, shall be installed. e) Text and symbols: Preferably signage shall be single post signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm 	Annexure 1 Part 1.C Guideline: A6 Pg. 111 Table 1.10 Exhibit 31 Image 60	PI	M
2	Public art			
	Low hanging branches of trees should not create obstructions in the movement of people. The trees planted on the buffer, between bicycle tracks and walkways should have a visual clearance of about 0.6m to 2.5 m height. Trees of height 2 to 2.5m with a larger canopy shall be selected for natural shading and clearance. Hedges planted shall have a maximum height of 0.6 m.	Annexure 1 Part 1.C Guideline: E5 Pg. 115	PI	O
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. Legibility provision at park entrance shall adhere to the standards as prescribed in Table No.-8 below:

Table No.- 8: Legibility provision at park entrance

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	<p>Signages</p> <p>Park Entrance Board</p> <ul style="list-style-type: none"> a) Location: The entrance board shall be located at the most prominent location preferably on the right-hand side of the entrance gate to ensure legibility for both pedestrians and vehicles. b) Information on Signage: The park entrance board shall contain the name of the park in bold and clear letters along with park timings, development, maintaining authority and brief about the park. c) Representation: Multilingual signage board shall be both in English and Odia language. The text should be represented in braille as well at a height of 0.9m to 1.4m as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The board shall be mounted on a compound wall near the entrance gate of park. Instead of one board, two different boards can be installed on either side of the park entrance. d) Text and symbol: The text of park name shall be for long distance viewing from 20 to 40 m. Rest of the text can be for short distance viewing. From 6 to 12m. e) If separate gates are provided for entry and exit of pedestrians as well as at the entry points of parking area, it shall be clearly mentioned on the doorways. 	Annexure 1 Part 1.C Guideline: G1 Pg. 116 Exhibit 32	PI	M
	<p>Map of the park</p> <ul style="list-style-type: none"> a) Location: The map of park shall be placed either at the entrance recessed area or immediately after entering the park from the gate. It shall be placed in such a way that it would not obstruct view of park, or any other object should not overshadow it. b) Information on the Map: The map shall show basic zoning, pathways, activity areas, public utilities, other entry & exists, assembly points, emergency routes along with the location of the map itself (you are here). For providing further orientation, scale, north direction, directional arrows shall be marked on the map. c) Representation: Use of universal symbols and pictorial representation is a must. Multilingual signage 	Annexure 1 Part 1.C Guideline: G2 Pg. 117 Exhibit 33	PI	M

	<p>board shall be in English, Hindi and Odia language. The text shall be represented in braille at a lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The Map size shall vary between 1.8 x 1.8m to 2.4 x 3.0m.</p> <p>d) Text and symbols: Preferably map shall be wall or frame/screen mounted, informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 60mm to 36mm.</p>			
2	Notice and event board			
	<p>a) Location: The notice board shall be in the foyer area of park entrance with clear accessibility up to the board.</p> <p>b) Reflective markers: Use of different reflective markers, light strips and colour strips can be used for demarcating and highlighting ramp and stair start, end points and edges. The markers shall be continued inside the park along the walkways</p>	Annexure 1 Part 1.C Guideline: H1-H2 Pg. 118 Image 73	PI	O

3 **Lighting**

The entrance and exit of the park, shall be well lit. Light posts should be selected as per the size of foyer, entrance gate and overall scale of the entry. The park entrance should have a minimum lux of 20 lux. The temperature of it can vary from 3000 to 3500k providing a glare free luminacins.

Annexure 1
Part 1.C
Guideline: I1
Pg. 118

PI M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Legibility provision within the park shall adhere to the standards as prescribed in Table No.-9 below:

Table No.- 9: Legibility provision within the park				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
1	Signages			
	<p>Directional Signage</p> <p>a) Location: The directional signage shall be installed at all the walkway junctions and at the entry points of active or passive zones.</p> <p>b) Information on Signage: These signage boards shall contain all names of all zone entries in the immediate vicinity of 50m to 100 m. These should be accompanied by directional arrows for further navigation. Nearest utility available should be marked on it with the help of universal symbols.</p>	Annexure 1 Part 1.C Guideline: K1 Pg. 119 Exhibit 34	PI	M

	<p>c) Representation: Multilingual signage board shall be in English and Odia language. The text shall be represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The board shall be preferably mounted on compound wall near entrance gate of park. Instead of one board, two different boards can be installed on either side of the park entrance.</p> <p>d) Text and symbol: These should be single or double post mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 60mm to 36mm. Already developed and established signage designs by Horticulture department of BDA should be adopted inside the park.</p>			
	<p>Informative Signage</p> <p>a) Location: These boards shall be located at the entrance point of important active and passive zones of the parks such as open gym, children play area, jungle gym, yoga or skating area, flower gardens, urban agriculture area etc.</p> <p>b) Information on Signage: Name of the zone along with general information about the zone shall be written on the boards. Also, how to use the equipment or games, if any, shall also be added to the board. These boards can be installed near the equipment. For children play area, pictorial representation of games as compiled in Child Play Book by BUKC can be drawn on passive walls or boards depicting how to play these games.</p> <p>c) Representation: Multilingual signage board preferably in English and Odia language. Also, as mentioned in the earlier section the boards should be both represented in pictures/ drawings as well as text. Preferably these types of boards can be mounted directly over the floor and can have a height of 1.2 to 1.5m from floor height. The text should be represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA.</p> <p>d) Text and symbol: These should be single or double post mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 60mm to 36mm. Already developed and established signage designs by Horticulture department of BDA should be adopted inside the park.</p>	Annexure 1 Part 1.C Guideline: K2 Pg. 120 Exhibit 35	PI	O
	<p>Cautionary signage</p> <p>a) Strategic locations to provide warnings E.g., 'Steps ahead' or 'Do not spit' etc. Preferably the signage should be mounted on single post or installed on the barricading on the edges of walkways.</p> <p>b) Information of signage: The signage should show cautionary text or symbol, distance and/or directional</p>	Annexure 1 Part 1.C Guideline: K3 Pg. 121 Exhibit 36	PI	M

	<p>arrows. The Following category signage should be installed at minimum.</p> <p>c) Representation: signage plaques should be used following the similar language of signage designed by Horticulture department of BDA. The size of these plaques can range between 45cm X 25cm to 60cm X 25cm.</p> <p>d) Text and symbols: Preferably signage should be single post signage with long viewing distance for vehicles from 12m to 50 m, the text size may range between 120mm to 500mm. 6 m to 3 m, the text size may range between 60mm to 36mm.</p> <p>e) Installation of signage should be done carefully considering the orientation and light posts in the immediate vicinity. The signage installed should be well lit.</p>			
2	Floor markings			
	General guide markings on floors shall be represented by drawing universal symbols of wheelchair, footsteps, arrows, steps ahead marking etc.	Annexure 1 Part 1.C Guideline: L2 Pg. 122 Image 78	PI	O
3	Lighting			
	The lighting fixture plan shall be prepared in accordance with the planting plan to avoid any overshadowing of areas or to ensure lighting is not hindered by the vegetation's canopy.	Annexure 1 Part 1.C Guideline: M2 Pg. 123 Exhibit 79	PBI	M
	All the accessible areas should be well lit with minimum illumination of 10 lux, whereas passive areas should always have a minimum illumination of 5 lux.	Annexure 1 Part 1.C Guideline: M3 Pg. 123 Table 1.13	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

9. Environment provision in parks shall be done as following -

- i. Environment provision for approach to the park shall adhere to the standards as prescribed in Table No.-10 below:

Table No.- 10: Environment provision for approach to the park

S. No	Child friendly guidelines	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Public art			
	Street art shall be incorporated around the park within 800m walking distance from the entrance.	Annexure 1 Part 1.D Guideline: B3 Pg. 132 Image 84	PBI	O
2	Street furniture			
	Different shapes, colours in accordance with the theme of the park near 1km radius shall be adopted for the street furniture.	Annexure 1 Part 1.D Guideline: C1 Pg. 133 Image 86	PBI	O
3	Health and hygiene			
	Noise Pollution Prevention measure: The streets adjoining parks shall be declared silence zone or no honking zones.	Annexure 1 Part 1.D Guideline: E1 Pg. 136 Image 93	PBI	M
	The street edges facing park should be treated with sound pollution mitigation barriers such as: Landscaped earth mounds, hedges, dense foliage trees, Perforated boundary or fencing surfaces, speed breakers and barriers to lower the speed before the zone starts	Annexure 1 Part 1.D Guideline: E2 Pg. 136	PI	M
	It shall be preferred to locate parks away from major junctions, heavy vehicle traffic movement and identified congestion points.	Annexure 1 Part 1.D Guideline: E3 Pg. 136	PBI	M
	If any park exists within the major traffic area, then, time-based street closures for vehicles can be followed at peak hours of the park.	Annexure 1 Part 1.D Guideline: E4 Pg. 136	PBI	O
	There shall be a toilet block at 500 m from the entrance gate of the park on each arm. All toilets should have adequate water supply and should be calculated as per 200 litres for flushing toilet, 70 litres for washing hand and or floor, 2 litres for flushing urinals per 10 number of users.	Annexure 1 Part 1.D Guideline: E15 Pg. 139 Image 97	PBI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory

denoted by 'M' or optional guideline denoted by 'O'

ii. Environment provision at park entrance shall adhere to the standards as prescribed in Table No.-11 below:

Table No.- 11: Environment provision at park entrance

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Aesthetics			
	Elements with different colour, textures, making different soothing sound should help stimulate the sight, hearing abilities, touch sense, impacting children psychology shall be incorporated starting from the entrance. Compound walls can be made up of brick jail patterns, braille wall, curvilinear walls with cut outs to play with natural day light and shadow, bamboo curtains etc.	Annexure 1 Part 1.D Guideline: F1-F4 Pg. 140 Image 98	PBI	O
2	Comfort			
	A guard or park guide shall be present all the time at the entrance of the gate to greet and navigate children. Event based colourful costumes of different child friendly mascots shall also be encouraged.	Annexure 1 Part 1.D Guideline: G1 Pg. 141	PBI	O
	The entrance of the park shall have a small waiting area facilitated with benches or seating spaces for both children and elderly. Different types of conventional as well as non-conventional permanent seating units can be used for the same.	Annexure 1 Part 1.D Guideline: G2 Pg. 141 Image 99	PI	O
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

iii. Environment provision within the park shall adhere to the standards as prescribed in Table No.-12 below:

Table No.- 12: Environment provision within the park

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Character			
	While designing and curating any park, a theme shall be finalized for the park depending upon the surrounding context as given in Draft Parks and Open Space Masterplan of Bhubaneswar. The colour palette shall resonate with the	Annexure 1 Part 1.D Guideline: H1 Pg. 142	PBI	O

	overall theme of the park.			
	No space in the park shall have illumination less than 5 lux at any operational hours of the park. Temperature of the lights in park can range between 3000K to 3500K for a soothing effect.	Annexure 1 Part 1.D Guideline: H2 Pg. 142	PI	O
	All the pathways of park should be at least 50% shaded all throughout the day. Natural or artificial elements can be used for shading them.	Annexure 1 Part 1.D Guideline: H3 Pg. 142	PBI	O
2	Landscape			
	For plantation plan of any new park or redevelopment of park, Planting Palette developed for Bhubaneswar under Parks and Open Spaces Master Plan shall be referred.	Annexure 1 Part 1.D Guideline: I1 Pg. 142	PBI	M
	Existing water bodies in the park, if any, shall be retained and restored and developed as water fountains, lily pond, or natural aquarium etc.	Annexure 1 Part 1.D Guideline: I2 Pg. 142	PBI	M
	A mix of various sensory landscape elements like reflexology path, scented and edible plant garden, sandpits, water features, musical instruments, different coloured and textured maze gardens, etc. shall be provided. The zones should also have a mix of play areas, lawns, dense vegetation areas, shaded active and passive spaces etc.	Annexure 1 Part 1.D Guideline: I3 Pg. 142	PI	O
	The signage, labels, waste bins and damaged equipment shall be replaced in phases or new signage shall be installed.	Annexure 1 Part 1.D Guideline: I5 Pg. 142	PBI	M
	For finalizing the children play area, Annexure VI of Parks and Open Spaces Master plan that provides 'Play equipment palette' shall be referred.	Annexure 1 Part 1.D Guideline: I5 Pg. 142	PBI	M
3	Comfort/park elements			
	The benches shall abide by the guidelines provided in the Child Friendly Bhubaneswar General Design Guidelines.	<i>Refer to Chapter III. General guidelines (Applicable to all public spaces) 3. Pg.14 of this document</i>	PI	M
	Seating spaces should be evenly distributed throughout the park at every 50-60 meters in high volume pedestrian areas and 100 meters in medium and low pedestrian areas. The arrangement of seating can vary as per the use.	Annexure 1 Part 1.D Guideline: K3 Pg. 144	PBI	O
	The park should provide different types of conventional as well as non-conventional sensory elements and play equipment to stimulate touch, sight, smell, sound and taste. It may include bright coloured elements, braille signboards, tactile platforms, colourful & edible herbal garden, interactive musical elements, various textured pathway like sand, chips, gravel, tactile, wood, brick, etc., textured touch pads,	Annexure 1 Part 1.D Guideline: K6 Pg. 144 Image 102	PI	O

	magnifying glass screens, colourful maze, coloured mosaic tiles, etc.			
	<p>Lactation booth should be provided in the neighbourhood level and above parks. The location should be easily identifiable. Preferably the booths can be near tot-lots so that the mother can overlook the tot-lot.</p> <p>The lactation room design shall abide by the guidelines provided in the Child Friendly Bhubaneswar General Design Guidelines.</p>	Annexure 1 Part 1.D Guideline: K7 Pg. 145 Image 103 Refer to Chapter III. General guidelines (Applicable to all public spaces) 15. Pg. 18 of this document	PBI	M
	A first-aid kit and nursing room shall also be accommodated into the unit.	Annexure 1 Part 1.D Guideline: K12 Pg. 145	PI	M
4	Cleanliness and hygiene			
	The solid waste bins system shall be place at every 500 m in the park along the walkways.	Annexure 1 Part 1.D Guideline: L1 Pg. 146	PBI	M
	Waste bins system along the walkways, seating spaces, children play areas, public utilities etc. shall have smaller containers whereas community waste bins system should be placed near cafeterias, large picnic spots etc. a) Community Waste Containers – size 1000-1500Ltrs b) Small size containers- size 30-50Ltrs	Annexure 1 Part 1.D Guideline: L2 Pg. 146	PI	M
	Any waste bin set up shall have at least 2 waste containers for dry and wet waste demarcated with the help of blue and green colour respectively and a suitable logo.	Annexure 1 Part 1.D Guideline: L3 Pg. 146	PI	M
	Wet waste composting system shall be built of adequate capacity as per the size and amount of biodegradable (Wet Waste) waste is generated in every park. Box type composting shall be preferred especially for the neighbourhood level and city level parks.	Annexure 1 Part 1.D Guideline: L4 Pg. 146	PBI	M
	All the dustbins shall be emptied every day in the morning. Sweeping of paths, jogging tracks, pond-side and removing animal waste, debris etc. shall be done at least twice daily. Cleaning of benches and equipment shall be cleaned once in a day. Repair and replace the signs, labels, bins and damaged equipment using the same designs and child-friendly colour palette	Annexure 1 Part 1.D Guideline: L5 Pg. 146	PBI	M
	Penalty on defaulters for littering/spitting/open urinating in the park premises shall be imposed.	Annexure 1 Part 1.D Guideline: L6 Pg. 146	PBI	M
	Storm water drainage system shall be developed in the park considering the terrain of the park, natural valleys & ridges.	Annexure 1 Part 1.D	PBI	O

		Guideline: L7 Pg. 147		
	A special treatment shall be done for low lying areas by converting them into either water bodies, rainwater retention ponds, rainwater harvesting pits, passive dense vegetation area etc. Use of pervious surfaces, bioswales, rain gardens, vegetated buffer strips in parks shall be done to detain stormwater so that a downpour doesn't wash out large quantities of sediment and pollutants. Use of hard paved surfaces should be restricted to the areas where they are mandatory.	Annexure 1 Part 1.D Guideline: L8 Pg. 147	PI	M
	Water ATMs shall be placed at every 500 m interval along the pathways near toilet blocks. Each water ATM shall be of minimum 500 litres capacity. Drinking water facility guidelines provided in the general guidelines shall be followed for design specifications.	Annexure 1 Part 1.D Guideline: L14 Pg. 147 and II. General guidelines 1.13 Pg. 18 of this document	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

10.Provision of learning in parks shall be done as following -

- i. Learning provision for approach to the park shall adhere to the standards as prescribed in Table No.-13 below:

Table No.- 13: Learning provision for approach to the Park				
S. No	Child friendly guidelines	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Signages			
	Create active facade through public art along the routes.	Annexure 1 Part 1.E Guideline: A3 Pg. 152	PBI	O
	Incorporate creative mapping, interactive wayfinding in the sidewalks (like 6 more steps to reach bus stop).	Annexure 1 Part 1.E Guideline: A4-A6 Pg. 152 Image 106	PBI	O

Note:
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. Learning provision at park entrance shall adhere to the standards as prescribed in Table No.-14 below:

Table No.- 14: Learning provision at park entrance

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
1	Queue manager			
	Tape or paint various shapes on the floor to show at least 1 - 2 m spacing for maintaining social distancing.	Annexure 1 Part 1.E Guideline: E1 Pg. 156 Image 114	PI	M
	Providing natural or artificial queue manager with simple interactive songs for kids.	Annexure 1 Part 1.E Guideline: E3 Pg. 156 Image 114	PBI	O
2	Signages			
	Depict scenes in the form of sculptures or art forms with basic information that relate to the theme of the park.	Annexure 1 Part 1.E Guideline: F1 Pg. 157 Image 115	PI	O
	Colourful, informative and enlarged maps with areas of interest at park entrances, within the boundaries of the park and along the set distances of pathway shall be encouraged.	Annexure 1 Part 1.E Guideline: F4 Pg. 157 Image 116	PI	O
	Provide audio-visual signage or digital kiosk showing greeting quotes or social messages "Greet everyone with a smile"; "Wish people around you a happy day", you are here maps, any educational general information for kids, etc.	Annexure 1 Part 1.E Guideline: F5 Pg. 157	PI	M
3	Floor marker leading to the park			
	Use bright, recognizable, clear and playful footmarks placed at regular intervals on the pavement.	Annexure 1 Part 1.E Guideline: G1 Pg. 158	PI	M
4	Bird or cow feeder			
	Bird feeder shall be installed at various locations within the park.	Annexure 1 Part 1.E Guideline: H1 Pg. 159	PI	O
5	Children's help desk			
	The park entrance (Community level or city level parks) shall have a guard room which acts as a help desk for children.	Annexure 1 Part 1.E	PBI	O

		Guideline: I1 Pg. 160		
	The staff of the park shall be trained to be sensitive to the users especially children and should know first aid measures, fire safety measures, all the exit and entry points.	Annexure 1 Part 1.E Guideline: I2-I3 Pg. 160	PBI	M
	The help desk shall display a helpline number.	Annexure 1 Part 1.E Guideline: I4 Pg. 160	PBI	M
	The help desk shall provide pamphlets, small brochures about the park, play spaces, play equipment, any other special provision of elements in park like library, herbal garden, traffic park, etc., fun activities for kids, events, etc.	Annexure 1 Part 1.E Guideline: I5 Pg. 160 Image 123	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

iii. Learning provision within the park shall adhere to the standards as prescribed in Table No.-15below:

Table No.- 15: Learning provision within the park

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Interactive park			
	Provide interactive walls or interactive sculptures inside the park.	Annexure 1 Part 1.E Guideline: J1 Pg. 161 Image 124	PI	M
	Include the local community, artists, and residents especially children living in the community for various park events, art installations and other workshops	Annexure 1 Part 1.E Guideline: J3 Pg. 161	PBI	O
2	Unconventional play areas			
	The play equipment design shall incorporate multiple use and functionality.	Annexure 1 Part 1.E Guideline: K1-K2 Pg. 162	PBI	M
	The surface and material of the play equipment shall incorporate letters, symbols, alphabets, colours and even a blackboard to allow free thinking.	Annexure 1 Part 1.E Guideline: K3 Pg. 162	PI	M

3	Creche/ playschool/ library in the park			
	Set up creche/ playschool/ libraries in the parks (neighbourhood level or community level) by collaborating with the local schools.	Annexure 1 Part 1.E Guideline: L1 Pg. 163	PBI	O
4	Programmatic interventions			
	Follow child friendly Bhubaneswar play book for creating local play activities in the park.	Annexure 1 Part 1.E Guideline: M1 Pg. 164	PI	O
	Include elements like water, sounds of nature, sand and soil etc. for the children to recognize basic elements and various forms in nature	Annexure 1 Part 1.E Guideline: M3 Pg. 164	PI	O
	Setup an inhouse park nursery which could initiate events and programmes like composting workshops, plantation drives with children etc.	Annexure 1 Part 1.E Guideline: M4 Pg. 164	PI	O
	Provide informative, indicative and interactive signages near various kind of activity areas like play spaces, garden area, sensory area, etc	Annexure 1 Part 1.E Guideline: M6 Pg. 164	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

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CHILD FRIENDLY DESIGN REGULATIONS FOR STREET (APPROACH TO ANY PUBLIC SPACE)

This chapter prescribes all design specifications and recommendations required to develop or improve or design a child friendly street. Since streets provide approach to all the public spaces, these guidelines shall also be applicable to the surrounding of any public space.

CHAPTER – V CHILD FRIENDLY STREETS (APPROACH TO ANY PUBLIC SPACE)

11. Accessibility provision in the streets shall be done as following –

i. Accessibility provision in streets shall adhere to the standards as prescribed in Table No.-16 below-

Table No.- 16: Accessibility provision in pedestrian zone

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
i	A dedicated pedestrian walkway shall be provided on the streets with RoW more than 9m. These walkways shall be raised by 0.15 to 0.20 m from the carriage way.	Annexure 1 Part 2.A Guideline: A1 Pg. 172 Exhibit 42	PI	M
	Walkway width may vary between minimum 1.8m to maximum 5 m depending upon the street width frontage and land use around it.	Annexure 1 Part 2.A Guideline: A2 Pg. 172	PI	M
	The dedicated walkway width shall be free of any obstruction due to street furniture, utility, landscape elements for uninterrupted walking experience. In case of walkway in front of commercial frontage, minimum 1 m space shall be left in between walkway and commercial front edge. In case of walkways adjacent to a compound wall, building or fencing, 0.5m buffer space shall be added.	Annexure 1 Part 2.A Guideline: A3 Pg. 172	PBI	M
	Walkways placed adjacent to boundary walls, structures or property edges shall be at 60 to 80 cm from the edge.	Annexure 1 Part 2.A Guideline: A4 Pg. 173	PBI	M
	The property entrances shall be preferred on the same level of the walkways without cut or level variation.	Annexure 1 Part 2.A Guideline: A5 Pg. 173	PBI	M
	The pedestrian zone shall be separated from the vehicular traffic using permanent barricades and bollards shall be used at the access points of properties.	Annexure 1 Part 2.A Guideline: A6 Pg. 173	PI	M
	Bulky objects such as post boxes shall not be placed outside the prescribed furniture line. The line of furniture should allow a clear circulation corridor of 1.8m or minimum 1.2m, wide. This dimension allows a wheelchair user and a pedestrian to pass each other without having to give way.	Annexure 1 Part 2.A Guideline: A8 Pg. 173	PI	M
	Clear distance between two bollards should be 0.3 m. The segregation can also be demarcated by providing different texture/ flooring pattern that demarcates the space from the other zones.	Annexure 1 Part 2.A Guideline: A9 Pg. 173	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. Accessibility provision in cycle zone shall adhere to the standards as prescribed in Table No.-17 below:

Table No.- 17: Accessibility provision in cycle zone

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	A dedicated cycle track shall be provided on the streets with RoW 24m and above. Sharrow (Shared RoW) can be provided on the streets with RoW ranging from 9 m to 24m.	Annexure 1 Part 2.A Guideline: B1 Pg. 174 Exhibit 43	PBI	M
	Minimum width of cycle track should be 2 m for one-way movement and 3m for two-way movement.	Annexure 1 Part 2.A Guideline: B2 Pg. 174	PI	M
	A slope steeper than 1:30 shall be avoided.	Annexure 1 Part 2.A Guideline: B3 Pg. 174	PI	M
	In case of dedicated cycle track, it shall be clearly demarcated and segregated from the vehicular traffic by either elevating the track or providing buffer area. The buffer can vary from 0.5m to 1m depending upon availability of RoW.	Annexure 1 Part 2.A Guideline: B4 Pg. 174	PI	M
	For roads with narrow right of way, the segregation can be limited to 0.15 m in height and 0.3 m in width. The level of the cycle track may be raised such that the vertical edge from cycle track is only 75 to 50 mm high.	Annexure 1 Part 2.A Guideline: B5 Pg. 175	PI	M
	In case of shared cycle tracks, the track shall be clearly demarcated with thermoplastic paints.	Annexure 1 Part 2.A Guideline: B6 Pg. 175	PI	M
	At property entrances or junctions, raised driveways and access ramps shall be provided to give preference to the cyclists.	Annexure 1 Part 2.A Guideline: B7 Pg. 175	PI	M
	Preferably the cycle tracks shall be shaded. Natural or artificial shading devices can be used with minimum vertical clearance of 2.25m. No branches or foliage should obstruct the clear view.	Annexure 1 Part 2.A Guideline: B8 Pg. 175	PI	O
	Cycle parking placed throughout a neighbourhood for caregivers and kids who cycle. Develop secure parking near	Annexure 1 Part 2.A	PBI	M

	all key destinations.	Guideline: B9 Pg. 175		
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Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Accessibility provision for multi utility zone shall adhere to the standards as prescribed in Table No.-18 below:

Table No.-18: Accessibility provision in Multi Utility Zone (MUZ)				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	Multi utility zone shall be planned on streets after leaving minimum 1.8m clear walkways. Minimum width of MUZ shall be 2m to accommodate utilities, resting points, transit mode stoppages etc.	Annexure 1 Part 2.A Guideline: C1 Pg. 176 Image 130 Exhibit 48	PI	M
1	Bus stop			
	Bus stops at every 500 m distance, preferably it shall be facilitated with bus queue shelter; universally accessible from the pedestrian walkway. To minimize pedestrian & cyclists' conflict at bus stops, cycle lanes must be routed from the rear of bus stops enhanced by use of landscape, level differences and other amenities.	Annexure 1 Part 2.A Guideline: C3 Pg. 176	PBI	M
	Accessible boarding at transit stops and on transit vehicles assists caregivers with strollers and people with disabilities in using transit.	Annexure 1 Part 2.A Guideline: C4 Pg. 177	PBI	M
	Bus stop shall include seating space, transparent sides for higher visibility. Minimum 50% transparency shall be maintained.	Annexure 1 Part 1.A Guideline: A6 Pg. 60	PBI	M
	A minimum 1.5m space in front of the BQS shall be provided for waiting passenger with clear height of 3m. Details of BQS shall be referred from Bhubaneswar Street Design Guidelines.	Annexure 1 Part 2.A Guideline: C6 Pg. 177	PI	M
	Preferably a public bicycle sharing (PBS) station and Intermediate Public Transportation (IPT) stop, auto stand shall be placed next to the BQS at 15 m (considering the standard bus length) for last mile connectivity. PBS shall be placed in such a way that it should not create obstruction in the bus or other traffic movement. In case the PBS station is not at the same level of cycle track, a smooth transition between levels with the help of ramp of slope not more than 1:75. It should be at the level of the Cycle track.	Annexure 1 Part 2.A Guideline: C6 Pg. 177	PBI	M

2	Parking Management			
	Parking locations: 3% parking spaces should be reserved in each parking lot for physically challenged people, pregnant women, or people with stroller. The same should be demarcated with road markings and universal symbols. Location of this parking space should be within 30m from the major public spaces or buildings.	Annexure 1 Part 2.A Guideline: C7 Pg. 177	PBI	M
	The parking bay should be bigger than the regular parking bay with 3.60m X 6.00m and a clear pedestrian movement area of 1.2m	Annexure 1 Part 2.A Guideline: C8 Pg. 177	PI	M
	Ground surfaces of parking spaces and access aisles shall not exceed 1:50 (approximately 2% slope) in any direction.	Annexure 1 Part 1.A Guideline: C4 Pg. 64	PI	M
	The length of parking rows shall be limited to 60 m (20-30 contiguous spaces) to create breaks for landscaping and sidewalk play spaces	Annexure 1 Part 1.A Guideline: C5 Pg. 64	PI	M
3	Street furniture			
	Seating/Benches: Seating spaces and benches shall be placed along the pedestrian walkways at an interval of every 100m. The benches shall be placed at the level of walkway and shall have seamless access without any kerb stone or planter boxes etc.	Annexure 1 Part 2.A Guideline: C9 Pg. 180	PBI	M
	In a cluster of seats or benches, one seat in every 5 seats should be made considering children height and anthropometry.	Annexure 1 Part 2.A Guideline: C10 Pg. 180	PBI	M
	In case the seating is to be placed facing the carriage way, 1m shall be left between kerb stone of carriage way and seat.	Annexure 1 Part 2.A Guideline: C11 Pg. 180	PI	M
4	Public Utilities			
	A module comprising of toilet units and water ATMs should be placed at an interval of 500 m to 800 m along the street of 9m and above width.	Annexure 1 Part 2.A Guideline: C13 Pg. 181	PBI	M
	Toilets should be located near every alternate bus-stop.	Annexure 1 Part 2.A Guideline: C14 Pg. 181	PBI	M
	Public toilet design and drinking water facility design shall be mandatorily according to the design specification as provided in the Bhubaneswar Child Friendly General Guidelines.	Refer to Chapter III. General guidelines (Applicable to all public spaces) 13. -	PBI	M

		14. Pg.17- Pg.18 of this document		
5	Bollards	Annexure 1 Part 2.A Guideline: C20 Pg. 182 Exhibit 49	PI	M
6	Kerb	Annexure 1 Part 2.A Guideline: C21 Pg. 182	PI	M
7	Planter Boxes	Annexure 1 Part 2.A Guideline: C22 Pg. 182	PI	O
8	Lactation Rooms	Annexure 1 Part 2.A Guideline: C23 Pg. 182	PBI	M
9	Help Desk	Annexure 1 Part 2.A Guideline: C24 Pg. 182	PBI	O
10	Lighting	Annexure 1 Part 2.A Guideline: C25 Pg. 182	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

iv. Accessibility provision for street design shall adhere to the standards as prescribed in Table No.-19 below:

Table No.-19: Accessibility provision for street design				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
1	Signals			
	Signals should be installed at junctions with traffic volume count more than 3000.	Annexure 1 Part 2.A Guideline: D1 Pg. 183	PBI	M
	Provide pelican signal at the mid blocks where minimum pedestrian volume count is more than 150 per hour on highest volume cross walk and traffic volume count for the same period is 600 or more per hour entering the intersection.	Annexure 1 Part 2.A Guideline: D2 Pg. 183	PI	M
2	Refuge Area			
	Well demarcated refuge areas shall be provided at the entry and exit points of pedestrian crossing as well as at the median with carriage width more than 24m. Minimum width of median with refuge should be 1.2m and the length of refuge area should be 3 to 5 m depending on the material choice.	Annexure 1 Part 2.A Guideline: D3 Pg. 183 Exhibit 50	PI	M
	The pedestrian crossings shall be placed within 250m radius from the entrance gates of major public open spaces, transportation hubs, schools and other institutional buildings.	Annexure 1 Part 2.A Guideline: D4 Pg. 183 Exhibit 50	PBI	M
	To accommodate additional features such as resting areas, plazas, commercial outlets, toilets etc., bulb outs or chicanes shall be planned without disturbing seamlessness of pedestrian walkways, cycle track and carriage way.	Annexure 1 Part 2.A Guideline: D5 Pg. 183 Exhibit 50	PI	M
	Identify streets to be designed as shared streets, where vehicles can access the space at very slow speeds, but priority is given to pedestrians.	Annexure 1 Part 2.A Guideline: D6 Pg. 183	PBI	M
3	Frontage Zone			
	All the properties with access from the street shall have a hindrance free access for pedestrians, bicycles and motorized vehicles.	Annexure 1 Part 2.A Guideline: D7 Pg. 184 Exhibit 51	PBI	M
	Placement of the street vendors shall be preferably towards property edges and shall be more easily accessible for pedestrians and cyclists than vehicular movement on carriageways.	Annexure 1 Part 2.A Guideline: D8 Pg. 184	PBI	M

4	Landscape			
	Line of trees shall not be a hindrance to the overall pedestrian or bicyclist's movement. Segregation of different modes of transportation can be done with the help of planter boxes, line of trees, hedge planting etc. for either to channelize or restrict movement.	Annexure 1 Part 2.A Guideline: E1 Pg. 185	PBI	M
5	Land Use			
	Program and cluster critical services and destinations to reduce trip chaining and journey durations for caregivers and kids.	Annexure 1 Part 2.A Guideline: F1 Pg. 185	PBI	O

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

12.Safety provision in streets shall be done as following –

- i. Safety provision in pedestrian zone shall adhere to the standards as prescribed in Table No.-20 below:

Table No.-20: Safety provision in pedestrian zone

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	Slope of the pedestrian walkway should not exceed more than 1:16 whereas cross-slope should not be greater than 1:75 at any point to provide safe path for wheelchair and prams. The path should be clear from any obstruction up to 2.2 m from ground. For visually challenged persons, tactile pavers should be used for navigation.	Annexure 1 Part 2.B Guideline: A2 Pg. 190	PI	M
	The surface of walkway should be made up of non-slippery materials such as Cobble stone, concrete pavers, natural stones.	Annexure 1 Part 2.B Guideline: A3 Pg. 190	PI	M
	Ensure that urban streets allow for a variety of speeds, whether someone is walking quickly with purpose, meandering slowly, pausing for a rest, or stopping to talk, sell goods, or eat.	Annexure 1 Part 2.B Guideline: A4-A5 Pg. 190	PBI	O
	Install pedestrian signals at intersections to allow pedestrians to cross the street safely. Display crossing time duration with a numerical timer during the clearance interval. The clearance time is generally based on a 1-m/s walking speeds applied to the total crossing distance. Since many pedestrians walk below this speed, provide frequent refuge or time the walk signal to allow for a 0.5-m/s speed.	Annexure 1 Part 2.B Guideline: A6 Pg. 191	PBI	M

	Provide frequent building entrances to foster active spaces.	Annexure 1 Part 2.B Guideline: A7 Pg. 191	PBI	O
	Any construction project that obstructs the sidewalk should be mitigated by providing a temporary sidewalk with a safe and convenient passage or a clearly marked detour. Provide adequate lighting beneath scaffolding and other construction sites.	Annexure 1 Part 2.B Guideline: A8 Pg. 191	PI	M
a	Pedestrian Crossing			
	Provide level crossings every 80–100 m in urban environments. Distances over 200 m should be avoided, as they create compliance and safety issues.	Annexure 1 Part 2.B Guideline: A9 Pg. 192	PBI	M
	Where vehicle speeds are above 30 km/h and pedestrian volumes and crossing demands are moderate to high, provide signalized crossings to support a safe walking environment.	Annexure 1 Part 2.B Guideline: A10 Pg. 192	PBI	M
	A pedestrian crossing shall be at least as wide as the sidewalks it connects to and not be less than 3 m wide.	Annexure 1 Part 2.B Guideline: A11 Pg. 192	PI	M
b	Pedestrian Refuge areas			
	Pedestrian refuge islands should be clearly visible to drivers, be well lit, and provide reflectors for improved night-time visibility. Pedestrian refuge islands should include curbs, bollards, or other features to protect people waiting to cross.	Annexure 1 Part 2.B Guideline: A12 Pg. 192 Exhibit 52	PI	M
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

ii. Safety provision in cycle zone shall adhere to the standards as prescribed in Table No.-21 below:

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	The cycle clear path shall be physically separated with vertical objects or a raised median. It shall be designed on every street with vehicular speeds more than 30 km/h or with high vehicular traffic.	Annexure 1 Part 2.B Guideline: B2 Pg. 194 Image 137	PBI	M
	At cycle crossings such as intersections, turn lanes, or in front of driveways, markings shall be applied to the roadway that alert drivers and cyclists to potential conflict areas and guide cyclists across intersections.	Annexure 1 Part 2.B Guideline: B3 Pg. 194	PI	M
	Provide cycle signals at intersections to separate cycle and motor vehicle movements, especially where vehicles turn across cycle facilities	Annexure 1 Part 2.B Guideline: B4 Pg. 194	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Safety provision for landscaping shall adhere to the standards as prescribed in Table No.-22 below:

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	Type of trees that ensure unobstructed visibility of the walkway, cycle track, shall not be planted at the corners and turnings of street that would create blind spots	Annexure 1 Part 2.B Guideline: C1 Pg. 196	PI	M
	While planting trees, it should be made sure that no roots are damaging drains, compound walls, underground utilities or the paved/evened surfaces.	Annexure 1 Part 2.B Guideline: C2 Pg. 196	PI	M
	Species selection should ensure tolerance for today's climate and resilience for future change. Consider the following criteria when planting within an urban context: <ul style="list-style-type: none"> • Drought tolerance 	Annexure 1 Part 2.B Guideline: C3 Pg. 196	PBI	M

	<ul style="list-style-type: none"> • Compaction tolerance • Heat tolerance • Wind tolerance • Longevity • Pollution tolerance • Pest and disease susceptibility • Potential as an allergen • Sun and shade tolerance • Predicted maintenance. • Mosquito breeding 			
	<p>Thorny and poisonous species of plants should not be planted on the streets to prevent the child of potential harm or allergies. If they are planted, one should ensure that it is not in the physical reach of people, especially a child.</p>	Annexure 1 Part 2.B Guideline: C4 Pg. 196	PI	M
	<p>The selection of trees during roadside plantation should take into consideration the visibility of people on the sidewalk from all the sides. The minimum height to be considered for the understory of the tree is 2.5 - 3 m</p>	Annexure 1 Part 2.B Guideline: C5 Pg. 196	PI	M
	<p>Bushes, hedges or grass plantation along the street should not be more than 0.45 - 0.8 m.</p>	Annexure 1 Part 2.B Guideline: C6 Pg. 196	PI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iv. Safety provision for street design shall adhere to the standards as prescribed in Table No.-23 below:

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
a.	Traffic Calming Strategies			
	Setting Speed Limits on streets around public spaces: Limits of 15-30 km/hr in local streets shall be imposed.	Annexure 1 Part 2.B Guideline: D1 Pg. 198	PBI	M
	12m or wider street shall have two-way chicane street with pavements on either side where feasible	Annexure 1 Part 2.B Guideline: D2 Pg. 198	PBI	O
	Shared street spaces: Local streets with a carriageway of less than 6 m could be converted into a shared street. Choose a material that is associated with pavements for the shared street.	Annexure 1 Part 2.B Guideline: D3 Pg. 198 Exhibit 54	PBI	M
	Prioritize pedestrian only streets: Local streets with a carriageway of 6 m or less than 6 m which provide access to the public spaces shall be converted into pedestrian only street to make it safer for children to access.	Annexure 1 Part 2.B Guideline: D4 Pg. 198	PBI	O
	Crossings/ Speed Tables: Sign-posted crossings or Speeds Tables are a better option on routes where restriction of traffic is not possible.	Annexure 1 Part 2.B Guideline: D5 Pg. 198	PI	M
	Wider Zebra Crossings near landmarks: The Zebra crossings should be at least 3 – 4 m.	Annexure 1 Part 2.B Guideline: D6 Pg. 199	PBI	M
	Demarcate public realm from the ROW: Use a natural buffer, planters, or bollards that cars must drive around to slow them down further. Keep the planters low, so that small children playing or walking behind the planters are visible to oncoming traffic. The spacing between bollards to be minimum 1.2m for single stroller to cross by.	Annexure 1 Part 2.B Guideline: D7 Pg. 199	PI	M
	The streets with no central median; around the public spaces should be a No overtaking/ Passing Zone	Annexure 1 Part 2.B Guideline: D8 Pg. 199	PBI	M
	Place crossings at regular intervals	Annexure 1 Part 2.B Guideline: D9 Pg. 199	PBI	M
	Promote passive surveillance on streets by introducing visual interest through a variety of architectural detail and building materials. This will create more eyes on streets.	Annexure 1 Part 2.B Guideline:	PI	M

		D10 Pg. 199		
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

v. Safety provision for priority routes, signals and signage shall adhere to the standards as prescribed in Table No.-24 below:

Table No.-24: Safety provision for priority routes, signals and signage

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	Establish priority routes that connect daily activities of children:	Annexure 1 Part 2.B Guideline: E1 Pg. 202	PBI	O
	The store fronts shall face the main street.	Annexure 1 Part 2.B Guideline: E2 Pg. 202	PBI	M
	Construction or installation of structures in the public realm that obstruct views shall be avoided.	Annexure 1 Part 2.B Guideline: E3 Pg. 202	PI	M
	Install Pelican Signals as well as Audio Signals at major crossroads, junctions and tabletop crossings especially near high pedestrian and vehicular volume areas.	Annexure 1 Part 2.B Guideline: E4 Pg. 202	PI	M
	Use of Safety signage at major junctions, to mark pedestrian streets, speed limit, pedestrian crossing, cycle tracks, landmarks such as schools, parks etc. a) Safety signages in the form of mandatory, cautionary or informative signage must be present on the streets.	Annexure 1 Part 2.B Guideline: E5 Pg. 202 Image 139-141	PI	M
a	Safety Signage Safety signages in the form of mandatory, cautionary or informative signage must be present on the streets. b) Mandatory Signage: These traffic signs are used to ensure free movement of traffic and make the road users cognisant of specific laws and regulations, restrictions, and prohibitions. Violation of these road safety signs is an offence, as per law. c) Cautionary Signage: These traffic signs make the road users conscious of hazardous conditions on the road beforehand. The drivers, accordingly, take necessary actions to handle the situation.	Annexure 1 Part 2.B Guideline: E6 Pg. 203	PI	M

	d) Informative Signage: These traffic signs guide road users about destinations, distance, alternative routes, and prominent locations like food joints,			
	Refer to the legibility section of Streets to understand more about the placement of the signage and relevance.	Annexure 1 Part 2.B Guideline: E7 Pg. 203	PI	M
Note:		<p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>		

13. Legibility provision in the streets shall be done as following –

- i. Legibility provision for signages shall adhere to the standards as prescribed in Table No.-25 below:

Table No.-25: Legibility provision for signages				
S.no	Child friendly guidelines	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	The signage boards shall be easily recognizable using contrasting colours, audio signals, braille markings, international symbols of accessibility	Annexure 1 Part 2.C Guideline: A1 Pg. 210	PI	M
	Mounting of signage should be decided based on user group (vehicular movement, pedestrians, differently abled etc). It can be mounted either on wall, cantilever from wall, single post, double post, overhead gantries etc. While mounting the signage, it should not overlap, overshadow any other signage, pathway, amenity or create blind spot in the immediate vicinity. It should also be checked that the sight of signage board is not obstructed, and the surface of the board is well lit.	Annexure 1 Part 2.C Guideline: A2 Pg. 210 Image 142	PI	M
	<p>Wayfinding Signage</p> <p>Map of the area shall show the nearest amenities as well as the routes leading the user to the amenities.</p> <p>a) Location: Way finding maps shall be installed near major landmarks. These locations include Parks, playgrounds, University campuses or nearby Schools, libraries or any other institutes, within a radius of around 500 m from a major landmark.</p> <p>b) Information on the Map: The map shall comprise of all the landmarks within 1 km radius along with the location of the map itself identifying the user's location. For providing further orientation, scale, north direction, directional arrows, locations of bus stops, bicycle & pedestrian walkway routes should be marked on the map.</p> <p>c) Representation: Use of universal symbols and pictorial representation shall be a priority. Multilingual signage board shall be in English, Hindi and Odia language. The text should also be represented in braille text at 0.9 m - 1.4 m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA.</p> <p>d) Text and Positioning: The map can be framed and mounted on a wall nearby or can be a frame supported by a post with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm to 12mm.</p>	Annexure 1 Part 2.C Guideline: A4 Pg. 211 Exhibit 57	PI	M
	Directional signage	Annexure 1	PI	M

	<p>This type of signage should be installed for navigating people to the parking locations, pick up drop off locations and pedestrian areas.</p> <ul style="list-style-type: none"> a) Location: These signages should be installed at all major junctions, near landmarks, residential colony gates, schools and other public spaces. Preferably the signage should be mounted on single post or cantilevered-wall-mounted between RoW and walkways, cycle tracks or public realms adjacent to it. b) Information of signage: The signage should show the name of the park, distance to the park as well the arrows for directions. c) Representation: Use of universal symbols and pictorial representation should be encouraged. Multilingual signage board should preferably be in both English and Odia language. The text should be represented in braille as well at a height of 0.9 m to 1.4 m as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. d) Text and positioning: The position of the signage should be single post or cantilevered-wall-mounted directional signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm. 	<p>Part 2.C Guideline: A5 Pg. 212 Exhibit 58 - 59</p>		
	<p>Cautionary Signage</p> <ul style="list-style-type: none"> a) Location: These signages should be installed at strategic locations to make street users vary of the important landmarks ahead. For example, "Go slow, School entrance ahead" or "Silent Zone ahead" should be installed on either side of the street at about 50 m distance from the location to provide enough time for a vehicle to bring vehicle in permissible speed limits. Preferably the signage should be mounted on a single post on the left-hand side of the moving traffic. b) Information of signage: The signage should show cautionary text or symbol, distance and/or directional arrows. The Following category signage should be installed at minimum. c) Representation: For traffic signages, IRC 067: Code of Practice for Road Signs should be followed. Use of universal symbols and pictorial representation should be encouraged. d) Multilingual signage board, both in English and Odia language, should be installed. e) Text and symbols: Preferably signage should be single post signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm. 	<p>Annexure 1 Part 2.C Guideline: A6 Pg. 213 Exhibit 60</p>	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. Legibility provision for road markings adhere to the standards as prescribed in Table No.-26 below:

Table No.-26: Legibility provision for road markings

S. No (1)	Description (2)	Reference in annexure 1 (3)	Type of intervention (4)	Mandatory/ optional (5)
	Tactile pavers: The tactile pavers shall be used along all the walkways for navigating visually challenged person on pathway, for understanding direction, direction change, level difference, intersections, stoppage, or refuge etc.	Annexure 1 Part 2.C Guideline: B1 Pg. 214 Image 147	PBI	M
	Use of reflective strips: Cat eye and/or reflective strips should be used on the edges of the Right of Way. Botts' dots can be used on the edges of cycle tracks, walkways and at all the locations with level difference.	Annexure 1 Part 2.C Guideline: B2 Pg. 214 Image 148	PI	M
	Other markings such as floor markings for Sharrow (Shared RoW for bicycles) should be painted with thermoplastic paints.	Annexure 1 Part 2.C Guideline: B3 Pg. 214 Image 149	PI	M
	Side walkways and cycle tracks should be clearly demarcated either by providing a level difference or by marking it with thermoplastic colours. In case of a shared street, the cycle track should be painted with a dedicated colour approved by CRUT along with the cycle icon painted at 40 m every interval. The edges of walkways should be marked with a 10 cm continuous white band along the track.	Annexure 1 Part 2.C Guideline: B4 Pg. 214 Image 150	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Legibility provision for public art shall adhere to the standards as prescribed in Table No.-27 below:

Table No.-27: Legibility provision for public art				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	Location: Public art can be used at already existing prominent place or to bring forward a passive space as a landmark to identify and navigate oneself. The spaces can be identified from nearby squares, compound or public building walls, bollards, barricading, major or shortest routes to park, public utility surfaces etc.	Annexure 1 Part 2.C Guideline: C1 Pg. 215 Image 151	PI	M
	Material: The painted artwork should be coated with Anti-Graffiti paint wherever necessary for durability, compliance, and impermanence. a) Use of other materials such as tiles, reuse of waste materials, adaptive reuse that are durable, low maintenance, non-toxic/harmless, easy & effective for installation should be preferred and encouraged.	Annexure 1 Part 2.C Guideline: C2 Pg. 215 Image 152	PBI	O
	Content of artwork: The artwork should not only add aesthetical value to surroundings but also should have functional aspect to it to improve physical and social quality. Preferably it should be relevant to the surroundings and complementary to the theme of the park or outdoor lifestyle.	Annexure 1 Part 2.C Guideline: C3 Pg. 215	PBI	O
	The artwork should not preferably contain branding of intoxicating or addictive products, offensive language, explicit images and should be approved by the Municipal Commissioner of Bhubaneswar Municipal Corporation.	Annexure 1 Part 2.C Guideline: C4 Pg. 215	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

iv. Legibility provision for street and pathway lighting shall adhere to the standards as prescribed in Table No.-28 below:

Table No.-28: Legibility provision for street and pathway lighting				
S. No	Child friendly guidelines	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	In important areas such as pedestrian crossings and tabletop junctions, light shall be received from at least two different directions and from two or more sources.	Annexure 1 Part 2.C Guideline: D3	PI	M

		Pg. 216		
	To avoid any glare for easy and safe movement of vehicles, bicycles and pedestrians especially of walkway light posts, the placement of the lights should be strategic.	Annexure 1 Part 2.C Guideline: D4 Pg. 216	PI	M
	For paved areas, Lights should be placed at every 20 m (min) interval.	Annexure 1 Part 2.C Guideline: D6 Pg. 216	PI	M
	Care should be taken to select the right combination of lamp, luminaire, and mounting system.	Annexure 1 Part 2.C Guideline: D7 Pg. 216 Table 1.1	PI	M
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

v. Legibility provision for road landscape shall adhere to the standards as prescribed in Table No.-29 below:

Table No.-29: Legibility provision for road landscape				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	<p>Types of trees used for public realm should be selected as per the placement.</p> <ul style="list-style-type: none"> a) Location: Hedges, Low height bushy trees, Long screening trees b) Median plantation of 0.6 m to 0.8 height such as hedges act as a screen to protect street users from the glare of vehicular lights. c) Low hanging branches of trees should not create obstructions in the movement of people. The trees planted on the buffer, between bicycle tracks and walkways should have a visual clearance of about 0.6m to 2.5 m height. Trees of height 2 to 2.5m with a larger canopy should be selected for natural shading and clearance. Hedges planted should have a maximum height of 2.6 m. d) Dense plantation, if necessary, should be restricted towards the edges of the Right of Way. 	Annexure 1 Part 2.C Guideline: E1-E5 Pg. 217	PI	M
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

vi. Legibility provision for traffic lights and pelican signals shall adhere to the standards as prescribed in Table No.-30 below:

Table No.-30: Legibility provision for traffic lights and pelican signals

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	Placement of traffic signals should such that they should be visible from minimum 40m. The lights should not be obstructed by any type of permanent or temporary type of installations, landscape elements, buildings etc.	Annexure 1 Part 2.C Guideline: F1 Pg. 217	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

14.Environment provision in the streets shall be done as per following –

- i. Environment provision for signage shall adhere to the standards as prescribed in Table No.-31 below:

Table No.-31: Environment provision for Signage

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	For street signage, primary colours like red, blue, and yellow, and secondary colours like green, purple and orange that are found to be more appealing and eye catching shall be preferred.	Annexure 1 Part 2.D Guideline: A2 Pg. 222 Exhibit 61	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. Environment provision for public art shall adhere to the standards as prescribed in Table No.-32 below:

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	The public art installation shall be installed at the height ranging between 0.6m to 1.2m at children's eye level.	Annexure 1 Part 2.D Guideline: B1 Pg. 224	PI	M
	The theme of the art should be relatable and interest children, such as cartoon characters, animals, numbers and alphabets or everyday activities like colouring, playing etc. different bright colours in combinations should be used in the artwork.	Annexure 1 Part 2.D Guideline: B2 Pg. 224	PBI	O
	Street art should not be limited to street edge, but should be incorporated as pavement art, installations, art on under flyover walls, vacant spaces, foot over bridges, parking lots etc.	Annexure 1 Part 2.D Guideline: B3 Pg. 224	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

iii. Environment provision for street furniture shall adhere to the standards as prescribed in Table No.-33 below:

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
a	General			
	Different shapes, colours in accordance with various themes around landmarks which is of interest to the children, should be adopted for the street furniture.	Annexure 1 Part 2.D Guideline: C1 Pg. 225	PBI	O
	Stroller parking or halting area should be provided at every 500 meters interval or immediately next to every seating space.	Annexure 1 Part 2.D Guideline: C2 Pg. 225	PBI	M
b	Benches			
	At least 1 bench to be placed every 100 - 120 m for elderly,	Annexure 1	PBI	M

	<p>children and people with special needs to rest during their walk.</p> <p>The design specifications for seating or bench shall be mandated as per the Bhubaneswar Child Friendly General Design Guidelines.</p>	Part 2.D Guideline: C4-C6 Pg. 226 Image 167 <i>and Refer to Chapter III. General guidelines (Applicable to all public spaces) 3. Pg. 14 of this document</i>		
c	Dustbins			
	<ul style="list-style-type: none"> a) Dustbins should be provided at every 100m - 120 m interval. b) Inlet of the dustbin should be easily operable and at maximum 0.9m level from the floor height. c) The design of dustbin should encourage children to throw the garbage in the dustbin and should promote segregation at source. 	Annexure 1 Part 2.D Guideline: C7-C9 Pg. 227 Image 168	PI	M

d	Artificial Shading Device			
	<ul style="list-style-type: none"> a) Artificial shading devices should be used at plazas, refuge areas on streets where natural shading is not possible. b) Use of barriers for side as well as overhead protection should be preferred in the form of vertical screening with plants and trellises or opaque louvres. c) Ensure the shade structure is of adequate size. Consider the arrangement of existing structures to create a larger shaded area. d) Highly reflective materials for surfaces should be avoided. 	Annexure 1 Part 2.D Guideline: C10-C13 Pg. 228 Image 169-170	PI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iv. Environment provision for landscape shall adhere to the standards as prescribed in Table No.-34 below:

Table No.- 34: Environment provision for landscape				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	Landscape:	Annexure 1	PI	M

	<ul style="list-style-type: none"> a) Plantation should have variety in term of inflorescence, colour, texture (seasonal variations), uses (medicinal) as a part of learning for kids. b) Trees with Conical canopies or high canopies should be used to create avenue effect. c) Larger trees at the edges of streets to create shade, reduce heat build-up, and minimize glare. d) Medium and large canopy trees with non-invasive roots should be planted for areas adjacent to paved circulation paths, compound walls and cycle tracks, drains etc. e) The plantation plan should ensure that the trees are plated in clusters to provide interesting patterns as well as providing the most effective shade cover. f) Landscape design must be sensitive and appropriate as per the site context to minimize disruption to the existing plant habitats. g) For all the above tree details, planting palette prepared by BDA BUKC should be referred 	Part 2.D Guideline: D1-D7 Pg. 229 Image 171-173		
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				
<p>v. Environment provision for Health and Hygiene shall adhere to the standards as prescribed in Table No.-35 below:</p>				

Table No.- 35: Environment provision for Health and Hygiene

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
a	Noise Pollution Prevention measure			
	<ul style="list-style-type: none"> a) The streets adjoining public spaces should be declared silence zone or no honking zones. b) The street edges facing park should be treated with sound pollution mitigation barriers such as: Landscaped earth mounds, hedges, dense foliage trees, Perforated boundary or fencing surfaces, speed breakers and barriers to lower the speed before the zone starts. c) It should be preferred to locate parks away from major junctions, heavy vehicle traffic movement and identified congestion points. d) If any park is in the major traffic area, then, time-based street closures for vehicles can be followed at peak hours of park. 	Annexure 1 Part 2.D Guideline: A1-A4 Pg. 230 Image 174-175	PBI	O
b	Air Quality Measures			

	<p>a) Use of light-coloured pavements, shading devices like trellis & pergolas, should be preferred on the walkways.</p> <p>b) Use of green shading (shade effect) like trellis, pergolas shaded by climbing plants, surfaces covered by grass etc., to provide shading and protection, decrease convection of heat to the air, contribute to reduced ambient temperature through evapotranspiration.</p> <p>c) Instead of using paving on all the horizontal surfaces, at least 30% of the multiutility zone surface should have exposed soil as it permits low temperature heat sink to decrease ambient temperature and increases the air speed in the considered zone.</p>	Annexure 1 Part 2.D Guideline: B1-B3 Pg. 231 Image 176	PI	M
c	Solid Waste Management			
	<p>a) The solid waste dustbins should be placed at an interval of 250m on the streets. The location of these bins should be on the edges of pedestrian walkways.</p> <p>b) The design of the waste bin should encourage people to segregate waste at source into dry and wet waste.</p>	Annexure 1 Part 2.D Guideline: C1 & C2 Pg. 232	PI	M
d	Storm Water Management			
	<p>a) Storm water drain channels shall run along the cycle tracks and pedestrian walkways. A gradient slope 1:50 for walking or cycle track surfaces should be maintained towards storm water drain channel inlets. Enough ridge and valleys should be provided as per the terrain.</p> <p>b) To reduce the overall rainwater runoff and urban flooding, pervious surface allowing water to percolate in the ground should be provided wherever possible. It can be coupled with bioswales, rain gardens, vegetated buffer strips along the streets to further reduce the water runoff as well as surface water logging.</p> <p>c) Suitable natural or artificial mechanisms should be adopted to drain out water within 1 hour from any low-lying area.</p>	Annexure 1 Part 2.D Guideline: D1-D3 Pg. 232 Image 177	PI	M
e	Open Drains			
	<p>a) No drains on streets should be kept open. Bi-yearly cleaning of the drains pre and post monsoon should be carried out to avoid any water logging and mosquito breeding issues.</p> <p>b) Use of natural drain cleaning treatment should be preferred that includes natural compounds like Phyto-traps, solar diffused aeration, light weighted building material, and wetland plants.</p>	Annexure 1 Part 2.D Guideline: E1-E2 Pg. 232	PBI	M
f	Toilets			
	<p>a) There should be a toilet block at 500 m from the entrance gate of the public space on each arm. All toilets should have adequate water supply and should be calculated as per 200 litres for flushing toilet, 70 litres for washing hand and or floor, 2 litres for flushing urinals per 10 number of users.</p>	Annexure 1 Part 2.D Guideline: F1-F3 Pg. 233 and refer to	PBI	M

	<p>b) It should be well ventilated by natural or mechanical ventilation systems.</p> <p>c) At least 1 per 3 toilet blocks should have child friendly provisions.</p> <p>The design of the toilets shall be mandated as per the guidelines provided in Bhubaneswar Child Friendly General guidelines.</p>	Chapter III. General guidelines (Applicable to all public spaces) 14. Pg. 18 of this document		
g	Water ATM			
	<p>Water ATMs should be placed along with the Toilet blocks for the ease of use and maintenance. Quality control and monitoring system should be established for the ATMs. Each water ATM will contain minimum of 500 litres.</p> <p>The design of the Water ATM shall be mandated as per the guidelines provided in Bhubaneswar Child Friendly GENERAL guidelines.</p>	Annexure 1 Part 2.D Guideline: G1 Pg. 233 and refer to Chapter III. General guidelines (Applicable to all public spaces) 13. Pg. 17 of this document	PBI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

15.Learning provision on streets shall be done as following –

- Learning provision on streets shall adhere to the standards as prescribed in Table No.-36 below:

Table No.- 36: Learning provision on Streets

S. No	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	Practical training experiences about road safety			
	Authorities like RTO or Municipal corporations shall conduct cycle practice sessions or practical road safety experiences to children.	Annexure 1 Part 2.E Guideline A1 Pg. 241	PBI	M
	School could collaborate with such agencies to make the child practice safe walking and cycling on road.	Annexure 1 Part 2.E Guideline	PBI	M

		A2 Pg. 241		
	Incorporating social messages in public art which makes the child aware of the road and its users.	Annexure 1 Part 2.E Pg. 243	PI	O
	A children helpline which directs children to report it in the nearest police station.	Annexure 1 Part 2.E Pg. 243	PBI	M
	Engaging children through placemaking or other fun participatory approaches <ul style="list-style-type: none"> • Painting the streets • Yoga in the street • Playing activities • Music in the street 	Annexure 1 Part 2.E Pg. 243	PI	M
	Conducting road safety patrol units with the help of police, transport officers, school authorities, to effectively regulate traffic outside their school and know about the importance of strictly adhering to road rules.	Annexure 1 Part 2.E Pg. 244	PBI	M
	Conducting awareness programs to know the effects of climate change and importance of green environment in the city.	Annexure 1 Part 2.E Pg. 244	PBI	O
	Conducting hands on experience where the students themselves act as pedestrians, drivers, and traffic police to enforce the road safety rules.	Annexure 1 Part 2.E Pg. 244	PBI	O
	Providing visual aids such as signage, positive messages on boards, public entrances or wall art can help children think beyond thus enhancing their ability to differentiate between right and wrong.	Annexure 1 Part 2.E Pg. 245	PI	O
	Helping children to understand various safety symbols will allow them to be cautious whenever they see it.	Annexure 1 Part 2.E Pg. 245	PBI	M
	Incorporating and celebrating street names in the mainstream educational framework could give the children the right knowledge from an early stage.	Annexure 1 Part 2.E Pg. 245	PBI	O
	RTO or other local authorities shall distribute brochures or press releases on a regular basis to give emphasis to the cause.	Annexure 1 Part 2.E Pg. 245	PBI	M
a	Signages			
	Create active facade through public art along the routes to the major public spaces	Annexure 1 Part 2.E Guideline A3 Pg. 247	PI	M
	Use street signages that reflect new behaviour patterns like social distancing: the practice of staying at least six feet apart.	Annexure 1 Part 2.E Guideline A4 Pg. 247	PI	M
	Incorporate creative mapping, interactive wayfinding in the sidewalks (like 6 more steps to reach bus stop) to highlight key sites and create outstanding and effective visual communication for children.	Annexure 1 Part 2.E Guideline A6 Pg. 247	PI	O
b	Barricading between sidewalk and street			
	Creating interactive bollards or bollards with seating between sidewalk and street will not only attract kids but also help in	Annexure 1 Part 2.E	PI	O

	<p>promoting their creative thinking and expression.</p> <ul style="list-style-type: none"> • Use of numbers, alphabets, smileys • Different shapes • Historic or unique character of the park and its surrounding • Use of bright colours • Street art or urban art or public art • Use of different country flags • Interactive Planter Box 	Guideline B1 Pg. 248		
c	Audio Signals			
	<p>Installation of audio and visual pelican cross signals for safer pedestrian crossing and directing child how to cross the road safely. The audio signals should direct the children to:</p> <ul style="list-style-type: none"> • Be vary of fast-moving vehicles • To look in all directions before crossing the road • Press the pedestrian button before walking across the street 	Annexure 1 Part 2.E Guideline C1 Pg. 249	PI	O
d	Playful and interactive street amenities			
	<ul style="list-style-type: none"> a) Create interactive and creative benches, dustbins, water fountains, public art-murals. b) Consider using various shaped dustbins, benches like animal, fruits, cartoon characters etc. to make it a unique attraction. c) Use contrast or bright colours to capture children's attention. d) Consider using numbers, shapes, colours, alphabets, planets, etc. e) Depict scenes that relate to and interest small children like animals, cartoon characters, or everyday activities. f) Choose planting and green elements with a range of colour, texture, shape, and use. g) Engage children when designing street art activities. h) The walkways should comprise of elements such as arrows represented in was that attract children and at the same time give them the information. 	Annexure 1 Part 2.E Guideline D1-D8 Pg. 250 Image 185, 186, 187	PI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

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BDA CHILD FRIENDLY PLAYGROUND DESIGN REGULATIONS, 2024

This chapter prescribes all design specifications and recommendations required to develop, improve or design a child friendly playground.

CHAPTER - VI

CHILD FRIENDLY PLAYGROUNDS

16. Accessibility provision in playgrounds shall be done as per following –

i. Accessibility provision for approach to playgrounds shall adhere to the standards as prescribed in Table No.-37 below:

Table No.- 37: Accessibility provision for approach to playgrounds

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
A	Ease of Transit			
	Bus Stops shall be placed within 200 - 500 m walking distance from the entrance of the playground. In case of new playgrounds, they should be strategically located with at least 1 bus stop within the mentioned radius. This guideline applies to Community level playground, City Level playground and District Level Playground.	Annexure 1 Part 3.A Guideline A1 Pg. 258 Exhibit 63	PBI	M
	In case of a school playground, at least one bus stop should be planned within 200 m of the school zone.	Annexure 1 Part 3.A Guideline A2 Pg. 258 Exhibit 64	PBI	M
	Stops should be located at 10- 50 m from the cross streets or intersections.	Annexure 1 Part 3.A Guideline A3 Pg. 258 Exhibit 64	PBI	M
	Both Auto and Cycle Parking areas should be provided adjacent to the bus stop to make inter-modal transfers as convenient as possible for all users, especially children.	Annexure 1 Part 3.A Guideline A4 Pg. 258	PBI	M
	Ensure that the city's NMT masterplan provides a connection between playgrounds through continuous cycle lanes and pedestrian realm on major streets and shared streets for RoW less than 12 m.	Annexure 1 Part 3.A Guideline A5 Pg. 258	PBI	M
	Universal design features like provision for tactile paving and ramps approaching the bus stop is highly recommended.	Annexure 1 Part 3.A Guideline A6 Pg. 259	PI	M
	Bus stop should include seating space, transparent sides for higher visibility. Minimum 50% transparency should be maintained.	Annexure 1 Part 3.A Guideline A7 Pg. 259	PBI	M
	The bicycle parking should at least be 1.8 m to 2.4 m wide.	Annexure 1 Part 3.A Guideline A8 Pg. 259	PI	M

	When a cycle parking station is full or empty, a user should be able to easily go to the nearest station to drop off or pick up a bicycle. Cities should ensure that stations are spaced no more than 300 m apart.	Annexure 1 <i>Part 3.A Guideline A9 Pg. 259</i>	PBI	M
B	Ease of Access			
	Obstruction free minimum walking zone should be minimum 1.8 m everywhere. Demarcation of walkway, within 100 m of the playground entry, with the use of bollards, barricades, planter boxes or hedges or change in level should be preferred.	Annexure 1 <i>Part 3.A Guideline B1 Pg. 260</i>	PBI	M
	Minimum 2 m of clear cycle track should be present where it is proposed.	Annexure 1 <i>Part 3.A Guideline B2 Pg. 260</i>	PI	M
	Tabletop crossings on major junctions within 200 m of the playground and speed tables/ speed breakers on the streets adjacent to the playground entry (within 10 m) should be provided which are connected to the sidewalks.	Annexure 1 <i>Part 3.A Guideline B3 Pg. 260</i>	PBI	M
	If the streets adjacent to the playground are less than 12 m or equivalent the street (RoW) should be designed as a shared street.	Annexure 1 <i>Part 3.A Guideline B4 Pg. 260</i>	PBI	M
C	Parking Management			
	A dedicated Passenger Pick up Drop Off Point (PPUDO) for each entrance should be clearly demarcated within 20 - 50 m of stadiums, community, city level playgrounds and school sports fields which are used as a shared playground.	Annexure 1 <i>Part 3.A Guideline C1 Pg. 262</i>	PBI	O
	The parking lot as well as PPUDO should be well connected to the pedestrian walkways leading to the playground entry without any hindrance or discontinuity.	Annexure 1 <i>Part 3.A Guideline C2 Pg. 262</i>	PI	M
	At least 3% of the parking should be reserved for strollers/ people with disability	Annexure 1 <i>Part 3.A Guideline C3 Pg. 262 Exhibit 67</i>	PBI	M
	5% of the total parking area should be reserved for bicycle parking.	Annexure 1 <i>Part 3.A Guideline C4 Pg. 262</i>	PBI	M
	Ground surfaces of parking spaces and access aisles should not exceed 1:50 (approximately 2% slope) in any direction.	Annexure 1 <i>Part 3.A Guideline C5 Pg. 262</i>	PBI	M
	The length of parking rows should be limited to 60 m (20-23 contiguous spaces) to create breaks for landscaping and sidewalk play spaces.	Annexure 1 <i>Part 3.A Guideline C6 Pg. 262</i>	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. Accessibility provision for playground entrance shall adhere to the standards as prescribed in Table No.-38 below:

Table No.- 38: ii.Accessibility provision for playground entrance				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
D	Entrance organization			
	The playground entry should be visible at least 20 to 30 m from the street.	Annexure 1 Part 3.A Guideline D1 Pg. 264 Exhibit 69	PBI	M
	Minimum of 1.8 m. recessed area/plaza between the playground entry and the street should be provided for waiting space, entering, and exiting the playground.	Annexure 1 Part 3.A Guideline D2 Pg. 264 Exhibit 69-70 Table 1.1	PI	M
	Provision of widened openings or entrances (up to 4 m) for a group of 15 – 20 children should be provided in community, city level and district level playgrounds.	Annexure 1 Part 3.A Guideline D4 Pg. 264	PBI	M
	The floor of entrance plaza should be levelled with non-slippery material and continuous and shall be provided with tactile orientation.	Annexure 1 Part 3.A Guideline D5 Pg. 264	PI	M
	Two rows of tactile warning tiles shall be installed across the entire width of the recessed area.	Annexure 1 Part 3.A Guideline D6 Pg. 264	PI	M
E	Egress and ingress			
	Ramps			
	Ramps should be provided at the entry and exit points of the playground or stadiums. The design of the shall be mandated as per the guidelines provided in the Bhubaneswar Child Friendly General public space guidelines.	Annexure 1 Part 3.A Guideline E1-E3 Pg. 266	PBI	M
	Handrails, Kerb Ramp, Steps and Stairs, Landing			
	All universally accessible features shall be mandated as per the guidelines provided in the Bhubaneswar Child Friendly General public space guidelines.	Annexure 1 Part 3.A Guideline E4-E19 Pg. 266-269 Exhibit 71-73	PBI	M
	Gate Design			
	The gate design of the playground should allow visibility	Annexure 1 Part 3.A	PBI	M

	inside the playground from the street or entrance.	Guideline E20 Pg. 270 Exhibit 74		
	Minimum height of the gate should be about 1.4 m to avoid people from jumping over the gates	Annexure 1 Part 3.A Guideline E21 Pg. 270 Exhibit 74	PI	M
	The gate handle or latch shall be installed at an accessible height for reaching, between 800 mm and 1100 mm above floor level.	Annexure 1 Part 3.A Guideline E22 Pg. 270 Exhibit 74	PI	M
	Round or oval type door knobs are not suitable for people with mobility impairment, for people of small stature or less strength, and for children. Minimum manual effort should be required, as for opening and closing doors	Annexure 1 Part 3.A Guideline E23-E24 Pg. 270	PI	M
	Entrances should have at least a clear 1800 m passage to allow a person with stroller move easily.	Annexure 1 Part 3.A Guideline E25 Pg. 270	PBI	M
	Provision of Wicket gates as rear entry points for children for ease of access and safety should be done.	Annexure 1 Part 3.A Guideline E27 Pg. 270	PI	M
	Drainage grill or cattle catchers should not be placed in front of the playground entrances.	Annexure 1 Part 3.A Guideline E28 Pg. 270	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

iii. Accessibility provision within the playground shall adhere to the standards as prescribed in Table No.-39 below:

Table No.- 39: Accessibility provision within the playground				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
F	Walkways			
	The entrances should directly connect to a continuous, dedicated, stroller-friendly walkway inside the playground if present.	Annexure 1 Part 3.A Guideline F1 Pg. 272	PI	M

		Exhibit 75		
	The walkway should be at least 1.5 m in width	Annexure 1 Part 3.A Guideline F2 Pg. 272 Exhibit 75	PI	M
	The walkway should be paved, non-slippery, levelled and should have a gradual slope towards the drain of not more than 1:50.	Annexure 1 Part 3.A Guideline F3 Pg. 272	PI	M
	The walkway should be provided around the activity areas or on the periphery.	Annexure 1 Part 3.A Guideline F4 Pg. 272	PBI	M
	Walkways are not recommended in sports playground design.	Annexure 1 Part 3.A Guideline F5 Pg. 272	PBI	M
Restrooms				
	Ramp access to the restroom with minimum 1.8 m width with handrails on both the sides along with steps should be provided.	Annexure 1 Part 3.A Guideline G1 Pg. 273	PBI	M
	The accessible restroom shall be located as close as possible to the entrance of the playgrounds and should be easy to locate. Design of all restrooms shall be as per design specifications provided in the Bhubaneswar Child Friendly General Public Space Design Guidelines.	Annexure 1 Part 3.A Guideline G2 Pg. 273 Exhibit 76 and refer to Chapter III. General guidelines (Applicable to all public spaces) 14. Pg. 18 of this document	PBI	M
	There should be a dedicated restroom for males, females and differently abled people. It should comprise of urinals, minimum one toilet unit and one washing area in for each category of users.	Annexure 1 Part 3.A Guideline G3 Pg. 273	PBI	M
	An emergency assistance alarm, including a reset control, should be provided in all accessible toilets and sanitary rooms.	Annexure 1 Part 3.A Guideline G4 Pg. 273	PBI	M
	The toilet door shall either be an outward opening door or two-way opening door or a sliding type and shall provide an unobstructed and clear opening width of at least 800 mm; it shall be easy to open and close. There should be no openings under or above the door that compromises on privacy.	Annexure 1 Part 3.A Guideline G5 Pg. 273	PI	M
	Ensure that the toilets are well lit, functional and equipped with handwashing supplies, Changing station, diaper	Annexure 1 Part 3.A	PI	M

	dispenser etc	Guideline G6 Pg. 273		
	The restrooms provided in Playgrounds larger than neighbourhood level playgrounds should provide shower and locker facilities.	Annexure 1 Part 3.A Guideline G7 Pg. 273	PBI	M
	Drinking Water			
	Stroller-friendly walkway access to drinking water taps.	Annexure 1 Part 3.A Guideline G8 Pg. 273 Exhibit 76	PI	M
	Spout heights should be between 800-900 mm, measured from the floor to the spout outlet. The maximum distance of the spout from the front edge of the drinking water facility shall be 125 mm	Annexure 1 Part 3.A Guideline G9 Pg. 273	PBI	M
	There shall be water glass provision; a minimum 100 mm space below the spout outlet shall be provided to allow for the insertion of a cup or glass.	Annexure 1 Part 3.A Guideline G10 Pg. 274		
	Dustbins			
	Garbage bins should be provided beside benches, resting points, and along various activity areas in the playground. Placement of the dustbins should not hamper the activity of the playground	Annexure 1 Part 3.A Guideline G11 Pg. 274	PI	M
	Seating and Resting Areas			
	Seating facilities should be provided in playgrounds. The location of the benches and seating should not hamper the overall circulation within the playground.	Annexure 1 Part 3.A Guideline G12 Pg. 274	PBI	M
	Bleachers or outdoor sports seating should be available in larger playgrounds which should be located on both the edges of the play field with a good visual access of the game.	Annexure 1 Part 3.A Guideline G14 Pg. 274	PBI	M
	The design of the bleachers should adhere to the accessibility guidelines.	Annexure 1 Part 3.A Guideline G15 Pg. 274	PBI	M
	Storage Rooms			
	For supervised playgrounds, storage for loose play materials such as balls, jump ropes, dramatic play props, and big loose parts should also be provided. Consideration should also be made as to whether storage of maintenance equipment (mowers, rakes, blowers, etc.) should be located on or near the playground.	Annexure 1 Part 3.A Guideline G16 Pg. 274	PI	M
	The design of the storage room should adhere to the technical requirements pertaining to tactile paving, ramps, stairs and handrails. The storage facility should be accessible by the supervisor of the schools or the playground manager.	Annexure 1 Part 3.A Guideline G17 Pg. 274 and refer to Chapter III. General	PI	M

		guidelines (Applicable to all public spaces) 5. Pg15, 9., 11. Pg 16 and 12. Pg.17 of this document		
	The storage facility should preferably be located near the restroom or the overall public utility zone.	Annexure 1 Part 3.A Guideline G18 Pg. 274	PI	M
H	Activity areas			
	It should be made sure that the site has proper drainage, so water will not pool under equipment. Additionally, steep slopes should also be avoided to prevent loose fill from washing away during heavy rain. This will ensure ease of access in any weather condition.	Annexure 1 Part 3.A Guideline H1 Pg. 275	PI	M
	Accessibility and inclusivity to the playground should be ensured to children of abilities regarding space, surfacing and pathways.	Annexure 1 Part 3.A Guideline H2 Pg. 275	PI	M
	Playground surfacing should extend at least 1.8 m beyond the equipment.	Annexure 1 Part 3.A Guideline H3 Pg. 275	PI	M
	The play area in a tot lot should have a wheelchair/ stroller access	Annexure 1 Part 3.A Guideline H4 Pg. 275	PI	M
	At least three different play objects are required for each playground.	Annexure 1 Part 3.A Guideline H6 Pg. 275	PBI	M
	Separate zones should be planned for quiet activities and active play; large group as well as individual or small group play; and play equipment. Compatible activities should be placed adjacent to each other – keeping in mind that the most active zones should be grouped together and away from the quiet zones.	Annexure 1 Part 3.A Guideline H7 Pg. 275	PBI	M
	Anything that could crush, or shear limbs should not be accessible to children on a playground.	Annexure 1 Part 3.A Guideline H8 Pg. 275	PBI	M
	Playgrounds should have sufficient lighting.	Annexure 1 Part 3.A Guideline H9 Pg. 275	PBI	M

I	Access methods to play equipment	Annexure 1 Part 3.A Guideline I1 Pg. 276		
	Access to playground equipment can take many forms, such as conventional ramps, stairways with steps, and ladders with steps or rungs. Access may also be by means of climbing components, such as arch climbers, climbing nets, and tire climbers.	Annexure 1 Part 3.A Guideline I1 Pg. 276	PI	M
	Handrails should be available for use at the appropriate height, beginning with the first step. The vertical distance between the top front edge of a step or ramp surface and the top surface of the handrail above it should be as follows: <ul style="list-style-type: none"> • Toddlers: between 0.38 m and 0.50 m. • Preschool-age: between 0.55 m and 0.66 m. • School-age: between 0.55 m and 0.96 m 	Annexure 1 Part 3.A Guideline I2 Pg. 276	PI	M
	Swings			
	<p>a) Swing structures should be located away from other equipment. Additional protection can be provided by means of a low blockade such as a fence or hedge around the perimeter of the swing area. The blockade should not be an obstacle within the use zone of a swing structure or hamper supervision by blocking visibility.</p> <p>Swing use zone:</p> <p>Use zone for single-axis swings – belt and full bucket</p> <p>b) The use zone in front of and behind the swing should be greater than to the sides of such a swing since children may deliberately attempt to exit from a single axis swing while it is in motion.</p> <p>c) The use zone for a belt swing should extend to the front and rear of a single-axis swing a minimum distance of twice the use zone for a belt swing should extend to the front and rear of a single-axis swing a minimum distance of twice the vertical distance from the pivot point and the top of the protective surface beneath it .</p> <p>d) The use zone for a full bucket swing should extend to the front and rear a minimum of twice the vertical distance from the top of the occupant's sitting surface to the pivot point.</p> <p>e) The use zone in front of and behind swings should never overlap with any other use zone.</p> <p>f) The use zone to the sides of a single-axis swing should extend a minimum of 1.8 m from the perimeter of the swing. This 1.8 m zone may overlap that of an</p>	Annexure 1 Part 3.A Guideline I3-I10 Pg. 277 Exhibit 77	PI	M

	<p>adjacent swing structure or other playground equipment structure.</p> <p>Multi-axis swing use zones</p> <ul style="list-style-type: none"> g) The use zone should extend in any direction from a point directly beneath the pivot point for a minimum distance of 1.8 m plus the length of the suspending members. This use zone should never overlap the use zone of any other equipment. h) The use zone should extend a minimum of 1.8 m from the perimeter of the supporting structure. This 1.8 m zone may overlap that of an adjacent swing structure or other playground equipment structure. 			
	Slides			
	<p>All slides should be provided with a platform with enough length to facilitate the transition from standing to sitting at the top of the inclined sliding surface. Embankment slides (built on the grade of a natural or man-made slope) are exempt from platform requirements because they are on ground level; however, they should not have any spaces or gaps as noted below.</p> <ul style="list-style-type: none"> a) Be at least 0.4 m deep for toddlers. b) Be at least 0.3 m deep for preschool-age and school-age children. c) Be horizontal. d) Be at least as wide as the slide chute. e) Be surrounded by guardrails or barriers. f) Access to a stand-alone slide generally should be by the means of a ladder with rungs, steps, or a stairway with steps. 	Annexure 1 Part 3.A Guideline I11 Pg. 278 Exhibit 78	PI	M
	Toddler play slide			
	<ul style="list-style-type: none"> a) In public areas with unlimited access – For a stand-alone slide, the use zone should be at least 1.8 m around the perimeter. b) For slides that are part of a composite structure, the minimum use zone between the access components and the side of the slide chute should be 0.9 m. c) The use zone at the end of the slide should be at least 1.8 m from the end of the slide and not overlap with the use zone for any other equipment 	Annexure 1 Part 3.A Guideline I12-I14 Pg. 278 Exhibit 78	PI	M
	Preschool and school age play slide			
	<ul style="list-style-type: none"> a) The use zone in front of the access and to the sides of a slide should extend a minimum of 1.8 m from the perimeter of the equipment. This 	Annexure 1 Part 3.A Guideline I15-	PI	M

	<p>recommendation does not apply to embankment slides or slides that are part of a composite structure.</p> <ul style="list-style-type: none"> b) The use zone in front of the exit of a slide should never overlap the use zone of any other equipment; however, two or more slide use zones may overlap if their sliding paths are parallel. c) For slides less than or equal to 1.8 m high, the use zone in front of the exit should be at least 1.8 m. d) For slides greater than 1.8 m high, the use zone in front of the exit should be at least as long as the slide is high up to a maximum of 2.4 m. 	I18 Pg. 278 Exhibit 78		
	See Saw			
	<ul style="list-style-type: none"> a) The use zone should extend a minimum of 1.8 m from each outside edge of the seesaw. b) The use zone may overlap with neighbouring equipment if the other piece of equipment allows overlapping use zones. c) There is at least 1.8 m between equipment when adjacent designated play surfaces are no more than 0.7 m high. d) There is at least 2.7 m between equipment when adjacent designated play surfaces are more than 0.7 m high. 	Annexure 1 Part 3.A Guideline I19-I22 Pg. 279 Exhibit 79	PI	M
	Climbing structures			
	Steps, ramps or ladders that lead into or onto the structure should end at a platform that can contain more than one child. Structures for infants and toddlers should have ramps and low steps. While 3-year-olds can use steps and step ladders, 4- and 5-year-olds can use more complex climbing methods, such as netting or poles. For children 3 and younger, all access routes should include handrails.	Annexure 1 Part 3.A Guideline I23 Pg. 279	PI	M
	Passive Areas			
	<ul style="list-style-type: none"> a) Areas with exposed utilities, steep slopes, water body etc. should be strategically located away from the children's play area. b) Walkways should not be provided inside such areas. 	Annexure 1 Part 3.A Guideline I24-I25 Pg. 279	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

17. Safety provision in playgrounds shall be done as per following –

- i. Safety provision for approach to the playgrounds shall adhere to the standards as prescribed in Table No.-40 below:

Table No.- 40: Safety provision for approach to the playground

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
A	Traffic calming strategies			
	<p>Setting Speed Limits on streets around playgrounds Limits of 15-30 km/hr in local streets should be imposed. Research has shown that children are unable to gauge the speed of vehicles travelling faster than 32km/h and may believe it is safe to cross when it is not. It is important to enforce this limit as well.</p>	Annexure 1 Part 3.B Guideline A1 Pg. 284-285 Image 193-196 Exhibit 80-81	PBI	M
	<p>Chicane: Chicane is a sharp double bend created to form an obstacle on a road to calm traffic and reduce speeds. 12m street can have two-way chicane street with pavements on either side.</p>	Annexure 1 Part 3.B Guideline A2 Pg. 284 Image 193	PI	O
	<p>Shared street spaces: Shared street spaces are increasingly becoming popular worldwide, where streets are places for people, rather than cars. These also helps in reducing the speed of through traffic. Local streets with a carriageway of less than 6 m could be converted into a shared street. Source: ITCN Guidelines, MoHUA</p> <p>Choose a material that is associated with pavements for the shared street. This encourages traffic to slow down and sends a clear signal that it is a zone with pedestrian priority.</p>	Annexure 1 Part 3.B Guideline A3 Pg. 284 Image 194 Exhibit 80-81	PI	O
	<p>Crossing/ Speed Tables: Speed bumps, the way they are currently used in Indian streets are ineffective in reducing the traffic speed. Sign-posted crossings or Speeds Tables are a better option on routes where restriction of traffic is not possible.</p>	Annexure 1 Part 3.B Guideline A4 Pg. 285 Image 195	PI	M
	<p>Wider Zebra Crossings near the playground: The Zebra crossings should be at least 3m to 4 m near the playground to give adequate space for the child and the caregiver to cross the street with other people.</p>	Annexure 1 Part 3.B Guideline A5 Pg. 285 Image 196	PI	M
	As mentioned in the Accessibility section, use a natural buffer, planters or bollards that cars must drive around to slow them down further. Keep the planters low, so that small children playing or walking behind the planters are visible to oncoming traffic. The spacing between bollards to be minimum 1.2 m for single stroller to cross by. This will keep	Annexure 1 Part 3.B Guideline A6 Pg. 286	PBI	M

	the drivers vary of the activities happening on the public realm.			
	The streets with no central median, around the park, shall be a No overtaking/ Passing Zone.	Annexure 1 Part 3.B Guideline A7 Pg. 286	PBI	M
	Promote passive surveillance on streets by introducing visual interest through a variety of architectural detail and building materials. This will create more eyes on streets.	Annexure 1 Part 3.B Guideline A8 Pg. 286	PI	M
	Installation of Pelican Signals as well as Audio Signals at major crossroads, junctions and tabletop crossings near playgrounds. Colour changing tactile strips on the curb will make children aware when to cross the street.	Annexure 1 Part 3.B Guideline A9 Pg. 286 Image 197	PI	M
	Use of Safety signage at major junctions, to mark pedestrian streets, speed limit, pedestrian crossing, cycle tracks, landmarks such as schools, parks etc.	Annexure 1 Part 3.B Guideline A10 Pg. 286 Image 198	PI	M
	If there is a vacant land parcel ² or a dead space within 100 m of the playground entrance, it shall be converted into a resting space or an active space.	Annexure 1 Part 3.B Guideline A11 Pg. 286	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. Safety provision for playground entrance shall adhere to the standards as prescribed in Table No.-41 below:

Table No.- 41:Safety provision for playground entrance				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
B	Control points			
	The playground entry should be located strategically while considering the following points while designing the playground:			
	Consider where most pedestrians will be coming from and how they will arrive at the playground. Position gates and entrances accordingly.	Annexure 1 Part 3.B Guideline B1 Pg. 288	PBI	M

² If the vacant land parcel is under government ownership, the authority will align the guideline with existing plans for the parcel. If the land parcel falls under the category of a prime real estate land, the guideline shall not be applicable. In case of private land parcel, the land shall be acquired after prior discussion with the land owner and on the basis of an incentive model.

		Exhibit 83		
	Land use and the urban form around the playground also plays an important role in determining the entrance; Placing the playground entrance on a residential or a local street will be the most beneficial to the residents in terms of both safety and accessibility.	Annexure 1 Part 3.B Guideline B2 Pg. 288 Exhibit 83	PBI	M
	More than 2 entry/ exit points should be provided only in case of sports stadiums, community or city level playgrounds. In case of school playgrounds, it is highly recommended that the entrances are limited to 2; one from within the school and one from the street.	Annexure 1 Part 3.B Guideline B3 Pg. 288 Exhibit 83	PBI	M
C	Fencing			
	To retain a visual connection between the playground and the street, the fencing shall be 1.5 m to 2 m in height.	Annexure 1 Part 3.B Guideline C1 Pg. 290 Image 202	PI	M
	The fence should not have a pointed spike at the end or rusted surface to prevent children from injuries.	Annexure 1 Part 3.B Guideline C2 Pg. 290 Image 203	PI	M
	All the major sides of the playground shall be fenced but with enough visibility outside and inside the playground.	Annexure 1 Part 3.B Guideline C3 Pg. 290 Image 203	PBI	M
	Blank compound walls are not recommended	Annexure 1 Part 3.B Guideline C4 Pg. 290	PI	M
D	Surface			
	The plaza/ recessed area before the playground entrance, if any, should be well paved, well-lit and should use non-skid material. The details for recommended materials for pavement are given in the section “Child Friendly Material Palette”.	Annexure 1 Part 3.B Guideline D1 Pg. 291	PI	M
	Tactile paving should be incorporated throughout the length of the recessed area as mentioned in the accessibility section. Tactile paving should also be present in the start and the landing area of the ramps. Tactile strip should be present on the edge of each step	Annexure 1 Part 3.B Guideline D2 Pg. 291 Image 204	PI	M
	Handrails should be present on both sides of the ramp as well as the staircase on the entry point.	Annexure 1 Part 3.B Guideline D3 Pg. 291 Image 205	PI	M
E	General			
	Certain openings such as fencing grills, ladder rungs etc. could present an entrapment hazard if the distance between any interior opposing surfaces is greater than 3.5 inches and less than 9 inches.	Annexure 1 Part 3.B Guideline D5 Pg. 291	PI	M

	Platforms should be generally flat	Annexure 1 <i>Part 3.B Guideline D6 Pg. 291</i>	PI	M
	Openings in platforms should be provided to allow for drainage.	Annexure 1 <i>Part 3.B Guideline D7 Pg. 291</i>	PI	M
	Platforms intended for toddlers should be no more than 0.8 m from the ground.	Annexure 1 <i>Part 3.B Guideline D8 Pg. 291</i>	PI	M
	Guardrails or protective barriers shall be provided on elevated platforms, walkways, landings, stairways, and transitional surfaces.	Annexure 1 <i>Part 3.B Guideline D9 Pg. 291</i>	PI	M
	Be sure that the used materials – natural or artificial are clean and non-allergenic.	Annexure 1 <i>Part 3.B Guideline D10 Pg. 291</i>	PI	M
	Provide shaded spots where caregivers need to wait and have good sightlines of play areas.	Annexure 1 <i>Part 3.B Guideline D11 Pg. 291</i>	PI	M
	Ensure ground to be flat, levelled and even surface.	Annexure 1 <i>Part 3.B Guideline D12 Pg. 291</i>	PI	M
	Ensure play surface to be greater than the actual play structure for safe landing.	Annexure 1 <i>Part 3.B Guideline D13 Pg. 291</i>	PI	M
	Look for the potential hazard in the area like low hanging branches, utility lines close to equipment or the children play area.	Annexure 1 <i>Part 3.B Guideline D14 Pg. 291</i>	PI	M
	Individual sports area or play area within the playground shall be fenced by natural or artificial elements.	Annexure 1 <i>Part 3.B Guideline D15 Pg. 291</i>	PI	M
	Use slip-resistant and skid-resistant pavers to avoid injuries.	Annexure 1 <i>Part 3.B Guideline D15 Pg. 291</i>	PI	M
	Ensure proper grading of the area for easy drainage.	Annexure 1 <i>Part 3.B Guideline D17 Pg. 291</i>	PI	M
	CCTV should be installed in the children's play area.	Annexure 1 <i>Part 3.B Guideline D18 Pg. 291</i>	PI	M

Note:

(i) The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Safety provision inside the playground shall adhere to the standards as prescribed in Table No.-42 below:

Table No.- 42: Safety provision inside the playground

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
E	Children play areas			
	Build a fence around the playground or install thick hedges to deter children from wandering off to hazardous areas. Make sure not to obstruct sightlines for supervisors.	Annexure 1 Part 3.B Guideline E1 Pg. 292 Image 208	PI	M
	Design appropriate fencing to ensure both safety and freedom of the child.	Annexure 1 Part 3.B Guideline E2 Pg. 292	PI	M
	Combine playing objects with the adequate floor covering, soft, elastic, artificial rubber, sand or cork etc. especially in tot lots	Annexure 1 Part 3.B Guideline E3 Pg. 292	PI	M
	Consider maximum allowable height of the play equipment as 1.20m to 1.5m	Annexure 1 Part 3.B Guideline E4 Pg. 292	PI	M
	Surfacing should be at least 0.3m deep and extend at least 6' in all directions around stationary equipment and depending on the height of the equipment, surfacing may extend farther than 1.80m	Annexure 1 Part 3.B Guideline E5 Pg. 292	PI	M
	The critical fall height should be 110 cm min and 300 cm maximum. The thickness of the tile will vary according to the fall height.	Annexure 1 Part 3.B Guideline E6 Pg. 292	PI	M
	Swings			
	<ul style="list-style-type: none"> a) Swings on the playground should not be incorporated into a climbing structure – instead they should be positioned on the periphery of the space with clear boundaries that alert children that they have entered the swing zone. Those boundaries may be plantings, a level change, or a low barrier. b) At a minimum, swings should be 2.7 m from any other equipment. c) Limit the number of swings to two or three and space them at least 0.2 m apart. 	Annexure 1 Part 3.B Guideline E8-E15 Pg. 292-293	PI	M

	<p>d) Infants should have bucket style seats that fully encircle their bodies; toddlers should use a swing with back support and a safety belt.</p> <p>e) Most swings require professional installation, and all require a safety surface over a large area. Even a very small swing zone will require approximately 6 x 9 m.</p> <p>f) Swing seats should be designed to accommodate no more than one user at any time.</p> <p>g) Edges of seats should have smoothly finished or rounded edges.</p> <p>h) A multi-axis tire swing such as a tire swing should not be suspended from a structure having other swings in the same bay.</p>			
	Slides			
	<p>a) Regardless of the type of slide, avoid using bare metals on the platforms, chutes, and steps. When exposed to direct sunlight the bare metal may reach temperatures high enough to cause serious contact burn injuries in a matter of seconds.</p> <p>b) Provide shade for bare metal slides or use other materials that may reduce the surface temperature such as, but not limited to, plastic or coated metal.</p> <p>c) The slide chute of an embankment slide should have a maximum height of 0.3 m above the underlying ground surface.</p> <p>d) Flat open chutes should have sides at least 0.1 m high extending along both sides of the chute for the entire length of the inclined sliding surface.</p> <p>e) The sides should be an integral part of the chute, without any gaps between the sides and the sliding surface</p>	Annexure 1 Part 3.B Guideline E16-E20 Pg. 293-294	PI	M
	See Saw			
	<p>a) Partial car tires, or some other shock-absorbing material, should be embedded in the ground underneath the seats, or secured on the underside of the seats.</p> <p>b) The maximum attainable angle between a line connecting the seats and the horizontal is 25°.</p> <p>c) There should not be any footrests.</p> <p>d) Preschool-age children can use spring-centred seesaws because the centring device prevents abrupt contact with the ground if one child dismounts suddenly. Spring-centred seesaws also have the advantage of not requiring two children to coordinate their actions to play safely.</p> <p>e) Seat design should not allow the spring centred see saw to be used by more than the intended number of users.</p> <p>f) Handholds should be provided at each seating position for gripping with both hands and should not turn when grasped.</p> <p>g) Handholds should not protrude beyond the sides of the seat.</p>	Annexure 1 Part 3.B Guideline E21-E28 Pg. 294	PI	M

	<p>h) The fall height for a seesaw is the distance between the highest point any part of the seesaw can reach and the protective surfacing beneath it.</p>			
	Climbing Structure:			
	<ul style="list-style-type: none"> a) The maximum platform height for infants and toddlers should be 0.6 m, and for pre-schoolers, 0.9 to 1.2 m, with protective enclosures to prevent falls. b) Calculate the maximum height for the fall zone at the highest point on the structure, which may be the roof, and provide an appropriate safety surface. c) Rungs should be generally round. d) All rungs should be secured in a manner that prevents them from turning. e) Free standing arch climbers are not recommended for toddlers or preschool-age children. f) Flexible climbers that provide access to platforms should be securely anchored at both ends. g) Connections between ropes, cables, chains, or between tires should be securely fixed. h) Flexible climbers are not recommended as the sole means of access to equipment intended for toddlers and preschool-age children. i) The perimeter of any opening in a net structure should be less than 0.4 m or greater than 0.7 m. 	Annexure 1 Part 3.B Guideline E29-E37 Pg. 295	PI	M
	<p>Infrastructure for sports such as cricket, volleyball, handball, basketball, badminton, and football</p> <p>For playgrounds with more than one sports area, the sports with the use of balls should not be located near the main streets. For multi-sports facility, each area should be fenced. The floor surface should not be uneven or rocky.</p>	Annexure 1 Part 3.B Guideline E38 Pg. 295	PI	M
F	Passive areas:			
	<ul style="list-style-type: none"> a) Ensure shaded seating with viewpoints. b) Avoid giving single stepped level difference in passive areas. c) Make sure that the passive areas are well lit and should be clearly visible from distance. d) Plant larger canopy evergreen/flowering trees with clear height of 2.5 m to provide natural shading with natural surveillance. e) Appropriate fencing around the passive areas which act as a barrier between the child and the area. The fence should be 1 m or more in height. 	Annexure 1 Part 3.B Guideline F1-F5 Pg. 296	PI	M
G	Public convenience			

	<p>Drinking water:</p> <ul style="list-style-type: none"> a) Ensure that the pipelines are kept clean throughout the year in order to prevent from contamination. b) Ensure proper cleaning and maintenance in and around the drinking water fountain to avoid water logging. c) Ensure regular check of the water quality before being dispensed to the public. d) Ensure that the area is well lit to be accessed safely even after sunset. <p>Restrooms:</p> <ul style="list-style-type: none"> a) Place the restrooms close to the activity areas. b) All toilets should have adequate water supply, should be well lit, clean and regularly maintained. c) Provision of ramp access with min. 1.8 m width accompanied with handrails as mentioned above in accessibility. 	Annexure 1 Part 3.B Guideline G1-G7 Pg. 296	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

18.Legibility provision in playgrounds shall be done as following –

- i. Legibility provision for approach to the playgrounds shall adhere to the standards as prescribed in Table No.-43 below:

Table No.- 43: Legibility provision for approach to the playground

S.no.	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
A	General guidelines			
	<p>Appearance</p> <ul style="list-style-type: none"> a) The signage boards should be easily recognizable by the use of contrasting colours, audio signals, braille markings, international symbols of accessibility (ISA – international wheelchair symbols). b) The signage design should be simple and should not comprise of non-essential information, Consistency should be followed for identification, orientation and navigation with the flexibility to adapt to the theme of the playgrounds. Height and age specific signage sizes should be designed regardless of user abilities. 	Annexure 1 Part 3.C Guideline A1 Pg. 302	PI	M

	Mounting of signage a) Mounting of signage should be decided on the basis of user group (vehicular movement, pedestrians, differently abled etc). b) It can be mounted either on wall, cantilever from wall, single post, double post, overhead gantries etc. While mounting the signage, it should not overlap, overshadow any other signage, pathway, amenity or create blind spot in the immediate vicinity. It should also be checked that the sight of signage board is not obstructed, and the surface of the board is well lit.	Annexure 1 Part 3.C Guideline A2 Pg. 302	PI	M
	Text and Symbols: Letter size should be chosen with due regard to the speed, classification and location of the road, so that the sign is of adequate size for legibility but without being too large or obtrusive. The size of the letter, in terms of x-height, to be chosen as per the design speed is given in Table 11.1 Acceptable Limits for Size of Letters and Visibility Distance	Annexure 1 Part 3.C Guideline A3 Pg. 302	PI	M
B	Specific guidelines			
	Way finding Signage. Map of the area should show the nearest amenities as well as the routes leading the user to the amenities. a) Location: Way finding maps should be installed at all the major points identified in the accessibility chapter. These locations include IPT stops, Bus Stops, PBS Stands, Parking lots, pick up- drop off points of the playground or nearby Schools, libraries or any other institutes, other nearby parks, residential areas etc. within a radius of around 500 m from the playground entrance. b) Information on the Map: The map should comprise of all the landmarks within 1 km radius along with the location of the map itself identifying the user's location. For providing further orientation, scale, north direction, directional arrows, locations of bus stops, bicycle & pedestrian walkway routes should be marked on the map. c) Representation: Use of universal symbols and pictorial representation should be a priority. Multilingual signage board should be in English, Hindi and Odia language. The text should also be represented in braille text at 0.9 m - 1.4 m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. d) Text and Positioning: The map can be framed and mounted on a wall nearby or can be a frame supported by a post with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm to 12mm.	Annexure 1 Part 3.C Guideline A4 Pg. 303	PI	M
	Directional signage	Annexure 1	PI	M

	<p>This type of signage should be installed for navigating people to the parking locations, pick up drop off locations and pedestrian areas around the playground.</p> <ul style="list-style-type: none"> a) Location: These signages should be installed at all major junctions, near landmarks, residential colony gates, schools and other public spaces which lie in 1 km radius from the entrance gate/s of park. Preferably the signage should be mounted on single post or cantilevered-wall-mounted between RoW and walkways, cycle tracks or public realms adjacent to it. b) Information of signage: The signage should show the name of the playground, distance to the playground as well the arrows for directions. c) Representation: Use of universal symbols and pictorial representation should be encouraged. Multilingual signage board should preferably be in both English and Odia language. The text should be represented in braille as well at a height of 0.9 m to 1.4 m as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA d) Text and positioning: The position of the signage should be single post or cantilevered-wall-mounted directional signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm. 	Part 3.C Guideline A5 Pg. 304		
	<p>Cautionary Signage</p> <ul style="list-style-type: none"> a) Location: These signages should be installed at strategic locations to make street users vary of the important landmarks ahead. For example, “Go slow, Playground entrance ahead” or “Silent Zone ahead” shall be installed on either side of the street at about 50 m distance from the entrance gate to provide enough time for a vehicle to bring vehicle in permissible speed limits. Preferably the signage should be mounted on a single post on the left-hand side of the moving traffic. b) Information of signage: The signage shall show cautionary text or symbol, distance and/or directional arrows. c) Representation: For traffic signages, IRC 067: Code of Practice for Road Signs shall be followed. Use of universal symbols and pictorial representation shall be encouraged. d) Multilingual signage board, both in English and Odia language, shall be installed. e) Text and symbols: Preferably signage should be single post signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm 	Annexure 1 Part 3.C Guideline A6 Pg. 305 Exhibit 88	PI	M
	Planting of poisonous, thorny, and skin irritants vegetation	Annexure 1	PI	M

	species should be avoided on the streets near playgrounds.	Part 3.C Guideline E4 Pg. 309		
	Low hanging branches of trees should not create obstructions in the movement of people. The trees planted on the buffer, between bicycle tracks and walkways should have a visual clearance of about 0.6m to 2.5 m height. Trees of height 2 to 2.5m with a larger canopy should be selected for natural shading and clearance. Hedges planted should have a maximum height of 2.6 m.	Annexure 1 Part 3.C Guideline E5 Pg. 309	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. Legibility provision for playground entrance shall adhere to the standards as prescribed in Table No.-44 below:

Table No.- 44: Legibility provision for playground entrance

S.no.	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	<p>Playground Entrance Board</p> <p>a) Location: The entrance board should be located at the most prominent location preferably on the right-hand side of the entrance gate to ensure legibility for both pedestrians and vehicles.</p> <p>b) Information on Signage: The playground entrance board should contain the name of the playground in bold and clear letters along with playground timings, development, maintaining authority and brief about the playground.</p> <p>c) Representation: Multilingual signage board preferably in both English and Odia language. The text should be represented in braille as well at a height of 0.9m to 1.4m as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The board shall be mounted on a compound wall near the entrance gate of playground. Instead of one board, two different boards can be installed on either side of the playground entrance.</p> <p>d) Text and symbol: The text of playground name shall be for long distance viewing from 20 to 40 m. Rest of the text can be for short distance viewing. From 6 to 12m.</p> <p>e) If separate gates are provided for entry and exit of</p>	Annexure 1 Part 3.C Guideline G1 Pg. 310 Exhibit 89	PI	M

	pedestrians as well as at the entry points of parking area, it should be clearly mentioned on the doorways.			
	<p>Map of the playground</p> <p>a) Location: The map of playground shall be placed either at the entrance recessed area or immediately after entering the playground from the gate. It shall be placed in such a way that it would not obstruct view of playground, or any other object should not overshadow it.</p> <p>b) Information on the Map: The map shall show basic zoning, pathways, activity areas, public utilities, other entry & exists, assembly points, emergency routes along with the location of the map itself (you are here). For providing further orientation, scale, north direction, directional arrows shall be marked on the map.</p> <p>c) Representation: Use of universal symbols and pictorial representation is a must. Multilingual signage board preferably in English, Hindi and Odia language. The text shall be represented in braille at a lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The Map size shall vary between 1.8 x 1.8 sq.m to 2.4 x 3 sq.m.</p> <p>d) Text and symbols: Preferably map shall be wall or frame/screen mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 20mm to 12mm.</p>	Annexure 1 Part 3.C Guideline G2 Pg. 311 Exhibit 90	PI	O
	<p>Lighting: The entrance and exit of the playground, should be well lit. Light posts should be selected as per the size of foyer, entrance gate and overall scale of the entry. The playground entrance should have a minimum lux of 20 lux. The temperature of it can vary from 3000 to 3500k providing a glare free luminacins.</p>	Annexure 1 Part 3.C Guideline H1 Pg. 312 Image 231	PI	O
	<p>Tactile Paving : The tactile pavers should be used along all the walkways for navigating visually challenged person on pathway, for understanding direction, direction change, level difference, intersections, stoppage or refuge etc.</p>	Annexure 1 Part 3.C Guideline I1 Pg. 312	PI	O

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii.Legibility provision within the playground shall adhere to the standards as prescribed in Table No.-45 below:

Table No.- 45: Legibility provision within the playground

S.no.	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
K	Signages Directional Signage a) Location: The directional signage should be installed at all the walkway junctions and at the entry points of active or passive zones. b) Information on Signage: These signage boards should contain all names of all zone entries in the immediate vicinity of 50m to 100 m. These should be accompanied by directional arrows for further navigation. Also, nearest utility availability should be marked on it with the help of universal symbols. c) Representation: Multilingual signage board preferably in English and Odia language. Also, the text should be represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The board should be preferably mounted on compound wall near entrance gate of playground. Instead of one board, two different boards can be installed on either side of the playground entrance. d) Text and symbol: These should be single or double post mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm to 12mm. Already developed and established signage designs by Horticulture department of BDA should be adopted inside the playground.	Annexure 1 Part 3.C Guideline K1 Pg. 313 Exhibit 91	PI	O
	Informative Signage e) Location: These boards should be located at the entrance point of important active and passive zones of the playgrounds such as basketball court, cricket pitch, tot lot, seating area etc. f) Information on Signage: Name of the zone along with general information about the zone should be written on the boards. Also, how to use the equipment or games, if any, should also be added to the board. These boards can be installed near the equipment. g) Representation: Multilingual signage board preferably in English and Odia language. Also, as mentioned in the earlier section the boards should be both represented in pictures/ drawings as well as text. Preferably these types of boards can be mounted directly over the floor and can have a height of 1.2 to 1.5m from floor height. The text should be	Annexure 1 Part 3.C Guideline K2 Pg. 314 Exhibit 92	PI	M

	<p>represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA.</p> <p>h) Text and symbol: These should be single or double post mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm to 12mm. Already developed and established signage designs by Horticulture department of BDA should be adopted inside the playground</p>			
	<p>Cautionary signage</p> <p>a) Strategic locations to provide warnings E.g., 'Steps ahead' or 'Do not spit' etc. Preferably the signage should be mounted on single post or installed on the barricading on the edges of walkways.</p> <p>b) Information of signage: The signage should show cautionary text or symbol, distance and/or directional arrows. The Following category signage should be installed at minimum.</p> <p>c) Representation: Signage plaques should be used following the similar language of signage designed by Horticulture department of BDA. The size of these plaques can range between 45cm X 25cm to 60cm X 25cm.</p> <p>d) Text and symbols: Preferably signage should be single post signage with long viewing distance for vehicles from 12m to 50 m, the text size may range between 5mm to 15mm. 6 m to 3 m, the text size may range between 25mm to 12mm.</p> <p>e) Installation of signage should be done carefully considering the orientation and light posts in the immediate vicinity. The signage installed should be well lit.</p>	Annexure 1 Part 3.C Guideline K3 Pg. 315 Exhibit 93	PI	M
L	Floor markings			
	Wayfinding signage can also be achieved though markings on the floor of walkways. With the help of appropriate symbols, navigation for people on wheelchair or with stroller can be facilitated through ramps avoiding steps and steep level differences. Similar way cycle tracks, if proposed in the park should be clearly demarcated with paint on the floor.	Annexure 1 Part 3.C Guideline L1 Pg. 316 Image 234-235	PI	O
	General guide markings on floors shall be represented by drawing universal symbols of wheelchair, footsteps, arrows, steps ahead marking etc.	Annexure 1 Part 3.C Guideline L2 Pg. 316 Image 234-235	PI	O
M	Lighting			
	A special care should be taken against theft and vandalism while installing the light fixtures.	Annexure 1 Part 3.C Guideline M1 Pg. 317 Image 236	PI	M
	The lighting fixture plan should be prepared in accordance with the planting plan to avoid any overshadowing of areas	Annexure 1 Part 3.C	PBI	M

	or to ensure lighting is not hindered by the vegetation's canopy.	Guideline M2 Pg. 317 Image 236		
	All the accessible areas should be well lit with minimum illumination of 10 lux, whereas passive areas should always have a minimum illumination of 5 lux	Annexure 1 Part 3.C Guideline M3 Pg. 317 Image 236	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

19.Environment in playgrounds –

- i. Environment provision for approach to the playgrounds shall adhere to the standards as prescribed in Table No.-46 below:

Table No.- 46: Environment provision for approach to the playgrounds

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
A	SIGNAGE			
	Apart from the creating a safe and legible place, signage design, its placement also adds to the overall vibrancy and feel of the place. The basic colours and symbols on the streets are in blue, green, red and yellow colours. These primary and secondary colours not only bring in contrast and better visibility but also induce different affect their moods and behaviour in children.	Annexure 1 Part 3.D Guideline: A1 Pg. 324	PBI	M
	For street signage, primary colours like red, blue and yellow, and secondary colours like green, purple and orange that are found to be more appealing and eye catching should be preferred.	Annexure 1 Part 3.D Guideline: A2 Pg. 324	PBI	M
B	PUBLIC ART			
	The public art installation should be preferably installed at the height ranging between 0.6m to 1.2m at children's eye level.	Annexure 1 Part 3.D Guideline: B1 Pg. 326	PI	M
	The theme of the art should be relatable and should interest small children, such as cartoon characters, animals, numbers and alphabets or everyday activities like colouring, playing etc. different bright colours in combinations should be used in the artwork.	Annexure 1 Part 3.D Guideline: B2 Pg. 326 Image 239	PBI	M
	Street art around the playground within 800m walking distance from the entrance.	Annexure 1 Part 3.D Guideline: B3 Pg. 326	PBI	M

		Image 240		
C	STREET FURNITURE			
	Different shapes, colours in accordance with the theme of the park in the vicinity of 1km radius should be adopted for the street furniture.	Annexure 1 Part 3.D Guideline: C1 Pg. 327 Image 241	PBI	O
	Stroller parking or halting area should be provided at every 500 meters interval or immediately next to every seating space.	Annexure 1 Part 3.D Guideline: C2 Pg. 327	PBI	O
	Utilities: The details of the utility should be as per the specifications provided in Chapter B: Streets.	Annexure 1 Part 3.D Guideline: C3 Pg. 327	PI	O
	The placement and material of the benches on streets should be as per the standards provided in Chapter II: Streets	Annexure 1 Part 3.D Guideline: C4 Pg. 327	PI	M
	Use of colours and textures should be done considering colour psychology as prescribed in the earlier section for all the street furniture elements like benches, kiosk, dustbin, signages etc., in order to retain consistency throughout.	Annexure 1 Part 3.D Guideline: C5 Pg. 327	PBI	O
	Consider using various shaped dustbins, benches like animal, fruits, cartoon characters etc. to make it a unique attraction.	Annexure 1 Part 3.D Guideline: C6 Pg. 327	PI	O
	Dustbins should be provided at every 100m interval.	Annexure 1 Part 3.D Guideline: C7 Pg. 327	PI	O
	Inlet of the dustbin should be easily operable and at maximum 0.9m level from the floor height.	Annexure 1 Part 3.D Guideline: C8 Pg. 327	PI	M
	The design of dustbin should encourage children to throw the garbage in the dustbin and should promote segregation at source.	Annexure 1 Part 3.D Guideline: C9 Pg. 327	PI	O
	Artificial shading devices			
	Guidelines related to artificial shading devices	Annexure 1 Part 3.D Guideline: C10-C13 Pg. 328	PI	O
	Landscape			
	Guidelines related to overall landscape design and placement	Annexure 1 Part 3.D Guideline: D1-D7 Pg. 329 Image 245-247	PBI	M

	Solid Waste			
	The solid waste dustbins should be places at an interval of 250m on the streets. The location of these bins should be on the edges of pedestrian walkways.	Annexure 1 Part 3.D Guideline: E1 Pg. 330	PI	O
	The design of the waste bind should encourage people to segregate waste at source into dry and wet waste.	Annexure 1 Part 3.D Guideline: E2 Pg. 330	PBI	M
	Water logging			
	To reduce the water logging instances, storm water drain channels should be run along the cycle tracks and pedestrian walkways. A gradient slope 1:50 for walking or cycle track surfaces should be maintained towards storm water drain channel inlets. Sufficient ridge and valleys should be provided as per the terrain to maintain the walkway or cycle tracks.	Annexure 1 Part 3.D Guideline: F1 Pg. 330	PI	M
	To reduce the overall rainwater runoff and urban flooding, pervious surface allowing water to percolate in the ground should be provided wherever possible. It can be coupled with bioswales, rain gardens, vegetated buffer strips along the streets to further reduce the water runoff as well as surface water logging.	Annexure 1 Part 3.D Guideline: F2 Pg. 330	PI	M
	Suitable natural or artificial mechanisms should be adopted to drain out water within 1 hour from any low-lying area.	Annexure 1 Part 3.D Guideline: F3 Pg. 330	PI	M
	Open Drains			
	No drains on streets in the park entrance vicinity should be open. Bi-yearly cleaning of the drains pre and post monsoon should be carried out to avoid any water logging and mosquito breeding issues.	Annexure 1 Part 3.D Guideline: G1 Pg. 330	PBI	M
	Use of natural drain cleaning treatment should be preferred that includes natural compounds like Phyto-traps, solar diffused aeration, light weighted building material, and wetland plants.	Annexure 1 Part 3.D Guideline: G2 Pg. 330	PBI	M
	Toilet			
	There should be a toilet block at 500 m from the entrance gate of the park on each arm. All toilets should have adequate water supply and should be calculated as per 200 litres for flushing toilet, 70 litres for washing hand and or floor, 2 litres for flushing urinals per 10 number of users.	Annexure 1 Part 3.D Guideline: H1 Pg 331	PBI	M
	It should be well ventilated by natural or mechanical ventilation systems.	Annexure 1 Part 3.D Guideline: H2 Pg 331	PBI	M
	At least 1 per 3 toilet blocks should have child friendly provisions.	Annexure 1 Part 3.D Guideline: H3 Pg 331	PBI	M
	Water ATM			
		Annexure 1	PBI	M

	Water ATMs should be placed along with the Toilet blocks for the ease of use and maintenance. Quality control and monitoring system should be established for the ATMs. Each water ATM will contain minimum of 500 litres.	Part 3.D Guideline: I1 Pg 331		
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Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. Environment provision for playground entrance shall adhere to the standards as prescribed in Table No.-47 below:

Table No.- 47: Environment provision for Playground Entrance				
S.no	Child friendly guidelines	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	Colour palette should be finalized for each playground as per the activities in the playground. The decided colour palette should be followed throughout the park as per specifications and designs provided by Landscape Architects.	Annexure 1 Part 3.D Guideline: F1-F4 Pg. 332 Image 332	PBI	O

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Environment provision within the playground shall adhere to the standards as prescribed in Table No.-48 below:

Table No.- 48: Environment provision within the playground				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
	While designing and curating any playground, a theme shall be finalized for the playground depending upon the surrounding context as given in Draft Parks and Open Space Masterplan of Bhubaneswar. The colour palette shall resonate with the overall theme of the park.	Annexure 1 Part 3.D Guideline: G1 Pg. 333	PBI	M
	No space in the playground should have illumination less than 5 lux at any operational hours of the playground.	Annexure 1 Part 3.D	PI	M

	Temperature of the lights in playground can range between 3000K to 3500K for a soothing effect.	Guideline: G2 Pg. 333		
	For plantation plan of any new playground or redevelopment of playground, planting palette developed for Bhubaneswar under Parks and Open Spaces Master Plan shall be referred.	Annexure 1 Part 3.D Guideline: H1 Pg. 333	PI	M
	The signage, labels, waste bins and damaged equipment should be phase wise replaced or newly installed with the finalized child-friendly park signages designed by BDA.	Annexure 1 Part 3.D Guideline: H3 Pg. 333	PI	M
	For finalizing the children play area, Annexure VI of Parks and Open Spaces Master plan that provides 'Play equipment palette' should be referred.	Annexure 1 Part 3.D Guideline: I3 Pg. 334	PBI	M
	Unconventional play equipment such as tires, rope jungle gyms, modular unit games etc should be explored and adopted.	Annexure 1 Part 3.D Guideline: I2 Pg. 334	PI	O
	The benches shall be provided with arm and back rest to each bench type. The design of the benches shall be as per the design guidelines provided in the Bhubaneswar General guidelines.	Annexure 1 Part 3.D Guideline: J1 Pg. 336 and refer to Chapter III. General guidelines (Applicable to all public spaces) 3. Pg. 14 of this document	PI	M
	For larger playgrounds where bleachers are provided, there should be a buffer between the active sports area and the bleachers. The buffer should be provided outside the use zone of the play field	Annexure 1 Part 3.D Guideline: J6 Pg. 336	PI	M
	Lactation booth should be provided in the neighbourhood level and above parks. The location should be easily identifiable. Preferably the booths can be near tot-lots so that the mother can overlook the tot-lot. The design of the lactation booth shall be as per the design guidelines provided in the Bhubaneswar General guidelines.	Annexure 1 Part 3.D Guideline: J7-J11 Pg. 337 Image 256 and refer to Chapter III. General guidelines (Applicable to all public spaces) 15. Pg. 18 of this document	PI	M
	A first-aid kit and nursing room can also be accommodated into the unit.	Annexure 1 Part 3.D Guideline: J12	PI	M

		Pg. 337		
	A clean shower area and a changing room should be provided along with the toilets. The area should be well-lit, equipped with lockers and should be well guarded. In case of women's shower area, it should be monitored by women staff.	Annexure 1 Part 3.D Guideline: J13 Pg. 337	PI	M
	The solid waste bins system should be place at every 500 m in park along the walkways so as to ensure that from any point in the park waste bin should be at distance of 250 m.	Annexure 1 Part 3.D Guideline: K1 Pg. 338	PBI	M
	Waste bins system along the walkways, seating spaces, children play areas, public utilities etc. should have smaller containers whereas community waste bins system should be placed near cafeterias, large picknick spots etc. c) Community Waste Containers – size 1000-1500Ltrs d) Small size containers- size 30-50Ltrs	Annexure 1 Part 3.D Guideline: K2 Pg. 338	PI	M
	Any waste bin set up should have at least 2 waste containers for dry and wet waste demarcated with the help of blue and green colour respectively and suitable logo to encourage people to segregate waste at source.	Annexure 1 Part 3.D Guideline: K3 Pg. 338	PBI	M
	Wet waste composting system should be built of adequate capacity as per the size and amount of biodegradable (Wet Waste) waste is generated in every park. Box type composting should be preferred especially for the neighbourhood level and city level playgrounds.	Annexure 1 Part 1.D Guideline: K4 Pg. 338	PI	M
	All the dustbins should be emptied every day in the morning. Sweeping of paths, jogging tracks, pond-side and removing animal waste, debris etc. should be done at least twice daily. Cleaning of benches and equipment should be cleaned once in a day. Repair and replace the signs, labels, bins and damaged equipment using the same designs and child-friendly colour palette	Annexure 1 Part 1.D Guideline: K5 Pg. 338	PBI	M
	Penalty on defaulters for littering/spitting/open urinating in the playground's premises shall be imposed.	Annexure 1 Part 3.D Guideline: K6 Pg. 338	PBI	M
	Water ATMs should be placed at very 500 m interval along the pathways near toilet blocks. Each water ATM should be of minimum 500 litres capacity. The design of the Water ATMs shall be as per the design guidelines provided in the Bhubaneswar GENERAL guidelines.	Annexure 1 Part 3.D Guideline: K14-K18 Pg. 338-339 and refer to Chapter III. General guidelines (Applicable to all public spaces) 13. Pg. 17 of this document	PBI	O

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

20. Learn provision in playgrounds shall be done as following –

- i. Learn provision for approach to the playgrounds shall adhere to the standards as prescribed in Table No.-49 below:

Table No.- 49: Learn provision for approach to the Playground					
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional	
(1)	(2)	(3)	(4)	(5)	
A	Signages				
	Incorporate awareness / informative Signages with mandatory signage.	Annexure 1 Part 3.E Guideline: A1 Pg. 344	PI	M	
	Using bright colours in the signages will attract kids and help their brain learn to recognize colour and visually simulate making the learning more fun and enjoyable.	Annexure 1 Part 3.E Guideline: A2 Pg. 344	PI	M	
	Create active facade through public art along the routes to the playground to give a look and feel of entering the park zone.	Annexure 1 Part 3.E Guideline: A3 Pg. 344	PI	M	
	Incorporate creative mapping, interactive wayfinding in the sidewalks (like 6 more steps to reach bus stop).	Annexure 1 Part 3.E Guideline: A4-A6 Pg. 344 Image 256-257	PI	M	
B	Barricading between sidewalk and street				
	Creating interactive bollards or bollards with seating between sidewalk and street will not only attract kids but also help in promoting their creative thinking and expression. <ul style="list-style-type: none"> • Use of numbers, alphabets, smileys • Different shapes • Historic or unique character of the park and its surrounding • Use of bright colours • Street art or urban art or public art • Use of different country flags • Interactive Planter Box 	Annexure 1 Part 3.E Guideline: B1 Pg 345	PI	M	
C	Audio signals				
	Installation of audio and visual pelican cross signals for safer pedestrian crossing and directing child how to cross the road safely. The audio signals should direct the children to:	Annexure 1 Part 3.E Guideline: C1	PI	M	

	<ul style="list-style-type: none"> • Be vary of fast-moving vehicles. • To look in all directions before crossing the road • Press the pedestrian button before walking across the street 	Pg 346 Image 260		
D	Playful and interactive street activities			
	Create interactive and creative benches, dustbins, water fountains, public art-murals.	Annexure 1 Part 3.E Guideline: D1 Pg 347	PI	M
	Consider using various shaped dustbins, benches like animal, fruits, cartoon characters etc. to make it a unique attraction.	Annexure 1 Part 3.E Guideline: D2 Pg 347	PI	O
	Use contrast or bright colours to capture children's attention	Annexure 1 Part 3.E Guideline: D3 Pg 347	PI	O
	Consider using numbers, shapes, colours, alphabets, planets, etc.	Annexure 1 Part 3.E Guideline: D4 Pg 347	PI	O
	Depict scenes that relate to and interest small children like animals, cartoon characters, or everyday activities.	Annexure 1 Part 3.E Guideline: D5 Pg 347	PI	O
	Choose planting and green elements with a range of colour, texture, shape and use.	Annexure 1 Part 3.E Guideline: D6 Pg 347	PI	O
	Engage children when designing street art activities.	Annexure 1 Part 3.E Guideline: D7 Pg 347	PI	O
	The walkways should comprise of elements such as arrows represented in was that attract children and at the same time give them the information.	Annexure 1 Part 3.E Guideline: D8 Pg 347	PI	O
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'				
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

ii. Learn provision for playground entrance shall adhere to the standards as prescribed in Table No.-50 below:

Table No.- 50: Learn provision for playground entrance

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
E	Queue manager			
	Tape or paint various shapes on the floor to show at least 1-2 m spacing for maintaining social distancing and this also provides a visual indicator that helps in body awareness.	Annexure 1 Part 3.E Guideline: E1 Pg. 348 Image 267	PI	M
	Providing natural or artificial queue manager with simple interactive songs.	Annexure 1 Part 3.E Guideline: E3 Pg. 348 Image 267	PI	M
F	Signages			
	Depict scenes in the form of sculptures or art forms with basic information that relate to the theme of the playground.	Annexure 1 Part 3.E Guideline: F1 Pg. 349 Image 268	PBI	M
	Making use of unique aspects of the history of the playground and its surrounding area in the signages help in creating sense of place, nurturing the local pride and stimulating learning about the place.	Annexure 1 Part 3.E Guideline: F4 Pg. 349 Image 269	PBI	O
	Provide audio-visual signage or digital kiosk showing greeting quotes or social messages “Greet everyone with a smile”; “Wish people around you a happy day”, you are here maps, any educational general information for kids, etc.	Annexure 1 Part 3.E Guideline: F5 Pg. 349	PI	M
G	Floor marker leading to the playground			
	Use bright, recognizable, clear, and playful footmarks placed at regular intervals on the pavement to act as an indicative route leading inside the playground.	Annexure 1 Part 3.E Guideline: G1 Pg. 350	PI	O
H	Children's help desk			
	The playground entrance (Community level or city level parks) shall have a guard room which acts as a help desk for children.	Annexure 1 Part 3.E Guideline: H1 Pg. 351	PI	M
	The staff of the playground shall be trained to be sensitive to the users especially children and should know first aid measures, fire safety measures, all the exit and entry points.	Annexure 1 Part 3.E Guideline: H2 Pg. 351	PBI	M
	The help desk shall display a helpline number.	Annexure 1 Part 3.E Guideline: H4 Pg. 351	PBI	M
	The help desk shall provide pamphlets, small brochures about the playground, play spaces, play equipment, any	Annexure 1 Part 3.E	PI	O

	other special provision of elements in park like library, herbal garden, traffic park, etc., fun activities for kids, events, etc.	Guideline:H5-H6 Pg. 351 Image 274		
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Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Within the playground shall adhere to the standards as prescribed in Table No.-51 below:

Table No.- 51: Within the Playground				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
I	Interactive park			
	Provide interactive walls or interactive sculptures inside the playground or tot lot.	Annexure 1 Part 3.E Guideline: I1 Pg. 352 Image 275	PI	O
J	Unconventional play areas			
	The play equipment design shall incorporate multiple use and functionality.	Annexure 1 Part 3.E Guideline: J2 Pg. 353	PI	M
	The surface and material of the play equipment shall incorporate letters, symbols, alphabets, colours and even a blackboard to allow free thinking.	Annexure 1 Part 3.E Guideline: J3 Pg. 353	PI	M
K	Creche/playschool/library in the tot lot			
	Set up creche/ playschool/ libraries in Tot lots (neighbourhood level or community level) by collaborating with the local schools.	Annexure 1 Part 3.E Guideline: K1 Pg. 354	PI	O
	Follow child friendly Bhubaneswar play book for creating local play activities in the playground.	Annexure 1 Part 1.E Guideline: M1 Pg. 164	PBI	O

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

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CHILD FRIENDLY DESIGN GUIDELINES FOR PUBLIC BUILDING PREMISES

This chapter prescribes all design specifications and recommendations required to develop, improve, or design a child friendly public building premises.

CHAPTER - VII

CHILD FRIENDLY PUBLIC BUILDING PREMISES

The public buildings are categorized into five categories –

- i. Educational institutes
- ii. Transit Hubs
- iii. Healthcare
- iv. Closed Recreational spaces
- v. Housing

21. Accessibility provision in public building premises shall be done as following -

- i. Accessibility provision for approach to the public building premises shall adhere to the standards as prescribed in Table No.-52 below:

Table No.- 52: Approach to public building premises

S.No	CHILD FRIENDLY GUIDELINES	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
(1)	(2)	(3)	(4)	(5)
	The following guidelines are common for all categories of public building			
	Provision of bus stops should be placed within 200 - 500 m walking distance from the entrance of the institution.	Annexure 1 Part 4A Guideline: A1 Pg. 360	PBI	M
	Due to women's higher domestic and care-taking facilities, amenities like day care centres, pre-primary and primary schools, primary health facilities, local markets are recommended to be provided within 5-15 minutes walking distance (300- 800m)	Annexure 1 Part 4A Guideline: A2 Pg. 360	PBI	M
	While developing neighbourhoods school amenities should be within 1.6 - 2 km from any residential colony. (URDPFI Guidelines 2015)	Annexure 1 Part 4A Guideline: A3 Pg. 360	PBI	M
	Pre-primary school and primary schools should be located either next to parks or play field with a minimum of 18 m x 36 m to be ensured for effective play. Whereas High schools should be located within 1km walking distance from play fields with a minimum area of 68m x 126m to ensure effective play	Annexure 1 Part 4A Guideline: A4 Pg. 360	PBI	M
	Provision of child friendly pedestrian corridors within the neighbourhoods connecting schools with special care promoting shaded walkways, cycle tracks, parklets etc.	Annexure 1 Part 4A Guideline: A5 Pg. 360	PBI	M
	Provision of at least one bus stop should be planned within 200 m of the school zone.	Annexure 1 Part 4A Guideline: A6	PBI	M

		Pg. 360		
	Roads near educational institution to be monitored by Traffic police.	Annexure 1 Part 4A Guideline: A7 Pg. 360	PBI	M
	Providing Crosswalks near educational institutes.	Annexure 1 Part 4A Guideline: A8 Pg. 360	PBI	M
	Providing Tactile paving and ramps approaching the bus stops	Annexure 1 Part 4A Guideline: A9 Pg. 361	PBI	M
	Provision of clear visibility with transparent sides in the bus stops, minimum 50 % transparency required	Annexure 1 Part 4A Guideline: A10 Pg. 361	PI	M
	Bicycle parking should be at least 1.8m to 2.4 m wide	Annexure 1 Part 4A Guideline: A11 Pg. 361	PBI	M
	Provision of nearest station to drop off or pick up a bicycle in case the parking is full. Ensuring that the stations are not more than 300 m apart	Annexure 1 Part 4A Guideline: A12 Pg. 361	PBI	M
	Provision of obstruction free minimum walking zone of minimum1.8 m should be everywhere. Provision of demarcation of walkway, within 100 m of the public building entry, with the use of bollards, barricades, planter boxes or hedges or change in level	Annexure 1 Part 4A Guideline: B1 Pg. 362	PBI	M
	Provision of minimum 2m of clear cycle track should be present where it is proposed	Annexure 1 Part 4A Guideline: B2 Pg. 362	PBI	M
	Provision of tabletop crossings on major junctions within 200 m of the public building and speed tables/ speed breakers on the streets adjacent to the playground entry (within 10 m) should be provided which are connected to the sidewalks.	Annexure 1 Part 4A Guideline: B3 Pg. 362	PBI	M
	If the streets adjacent to the public building are less than 12 m or equivalent the street (RoW) should be designed as a shared street to give priority to cyclists and pedestrians.	Annexure 1 Part 4A Guideline:B4 Pg. 362	PBI	O
	Provision of a dedicated Passenger Pick up Drop Off Point (PPUDO) for each entrance should be clearly demarcated within 20 - 50 m of the public building and school sports fields which are used as a shared playground.	Annexure 1 Part 4A Guideline:C1 Pg. 364	PBI	M
	The parking lot as well as PPUDO should be well connected to the pedestrian walkways leading to the public building entry without any hindrance or discontinuity. Both steps and ramps should be provided wherever necessary to provide universal access.	Annexure 1 Part 4A Guideline:C2 Pg. 364	PBI	M
	Provision of at least 3% of the parking should be reserved for strollers/ people with disability. A dedicated parking space for	Annexure 1 Part 4A	PBI	M

	individuals in wheelchairs or individuals with stroller/child to get in and out of a vehicle onto a level surface, suitable for wheeling and walking should be reserved. Preferable location can be at the shortest and most easily accessible point in the parking lot from at least one public building entrance.	Guideline:C3 Pg. 364		
	5% of the total parking area should be reserved for bicycle parking.	Annexure 1 Part 4A Guideline:C4 Pg. 364	PBI	M
	Ground surfaces of parking spaces and access aisles should not exceed 1:50 (approximately 2% slope) in any direction.	Annexure 1 Part 4A Guideline:C5 Pg. 364	PI	M
	The length of parking rows should be limited to 60 m (20-23 contiguous spaces) to create breaks for landscaping and sidewalk play spaces.	Annexure 1 Part 4A Guideline:C6 Pg. 364	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. Accessibility provision at public building entrance shall adhere to the standards as prescribed in Table No.-53 below:

Table No.- 53: Accessibility provision at Public Building Entrance

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
A	Entrance organization			
	The public building entry should be visible at least 20 to 30 m from the street.	Annexure 1 Part 4A Guideline: D1 Pg. 366	PI	M
	Provision of minimum of 1.8 m. recessed area/plaza between the public building entry and the street should be provided for waiting space, entry, and exit.	Annexure 1 Part 4A Guideline: D2 Pg. 366	PBI	M
	The recessed area dimension is considered keeping in mind the swing of the entrance gates. It shall vary for public building depending upon the area, use* and typology.	Annexure 1 Part 4A Guideline: D3 Pg. 366	PI	M
	Provision of widened openings or entrances (upto 4 m) for a group of 15 – 20 children should be provided in all types of institutions	Annexure 1 Part 4A Guideline: D4 Pg. 366	PI	O
	Provision of non-slippery material and shall be provided with tactile orientation at the floor of entrance plaza. It should be	Annexure 1 Part 4A	PI	M

	compliant to guidelines for differently abled to provide ease of transition to the public building entrance either by ramp or stairs.	Guideline: D5 Pg. 366		
	Two rows of tactile warning tiles shall be installed across the entire width of the recessed area.	Annexure 1 Part 4A Guideline: D6 Pg. 366	PI	M
B	Egress & ingress			
	Ramps Provision of ramps at the entry and exit points of the institution. They are necessary where there is a significant level difference from access streets.	Annexure 1 Part 4A Guideline:E1 Pg. 368	PBI	M
	Provision of minimum 1.2 m wide ramp. Ideally the ramp width should be about 1.8 m to accommodate both an adult with a pram and a small child walking beside or two wheelchairs side by side	Annexure 1 Part 4A Guideline:E2 Pg. 368	PI	M
	Provision of a levelled platform at the end of the ramp to manoeuvre. A curved ramp is not a preferred design solution.	Annexure 1 Part 4A Guideline:E3 Pg. 368	PBI	O
C	Handrails			
	The height to the top of a handrail shall be between 850 mm and 950 mm above the surface of a ramp, the pitch line of a stair, and the surface of a landing. A second handrail, with a lower profile than the first one, shall be provided. The height to the top of the second handrail should be between 650 mm and 750 mm above the surface of a ramp, the pitch line of a stair, and the surface of a landing. There shall be enough distance between the two handrails of about 200 mm.	Annexure 1 Part 4A Guideline:E4 Pg. 369; Image 287 Typical Handrail	PI	M
D	Kerb ramp			
	The kerb ramp should be near the designated accessible institutional area connecting the accessible path of travel to the main entrance.	Annexure 1 Part 4A Guideline:E5 Pg. 369	PI	M
	The kerb ramp width should be a minimum of 1000 mm. Kerb ramp design should comply with National Building Code, 2016.	Annexure 1 Part 4A Guideline:E6 Pg. 369	PI	M
	The accessible path to the kerb ramp must be marked with road markers painted on the surface to prevent people from falling in this area.	Annexure 1 Part 4A Guideline:E7 Pg. 369; Image 288 illustration explaining the technical design of a kerb ramp	PI	O
E	Steps and stairs			
	Provision of access with steps should also be provided at the entry and exit of the institutions, along with the ramps. The materials selected for the surface finish of the stairs shall be firm and slip resistant, especially if surfaces are	Annexure 1 Part 4A Guideline:E8 Pg. 370	PI	M

	likely to become wet due to location or use, or if spillage occurs. Slippery surfaces like granite, glazed tiles shall be avoided.			
	Shiny, polished surface materials that cause glare shall not be used for stairs or ramps.	Annexure 1 Part 4A Guideline:E9 Pg. 370	PI	M
	The stairs landing shall be minimum 1200 mm deep. The trade width of any step or of staircase should not be less than 1200 mm.	Annexure 1 Part 4A Guideline: E10 Pg. 370	PI	M
	A staircase designed to accommodate baby strollers should have treads 450 mm deep and risers 150mm high, resulting in slopes of 16- 20%. This is a shallower slope than normal staircases.	Annexure 1 Part 4A Guideline: E11 Pg. 370	PI	O
	Steps shall be of a consistent height and depth throughout the staircase.	Annexure 1 Part 4A Guideline: E12 Pg. 370	PI	M
	Provision of tactile ground surface indicators (warning type) shall be installed 300 mm before the beginning and 300 mm after the end of each flight of steps to aid people with visual impairments.	Annexure 1 Part 4A Guideline: E13 Pg. 370	PI	M
	Provision of support and guidance by a handrail shall be provided on stepped paths. A handrail shall be provided on each side of a flight of steps consisting of two or more risers.	Annexure 1 Part 4A Guideline: E14 Pg. 370	PI	M
F	Landing			
	Provision of an end landing shall be provided at the bottom and the top of a sloped path, a stepped path, or a ramp and where the run changes direction.	Annexure 1 Part 4A Guideline: E16 Pg. 371	PI	M
	The length of an end landing and an intermediate landing shall be not less than 1500 mm. Where the ramp run changes direction, the minimum landing dimensions shall be 1500 mm × 1500 mm.	Annexure 1 Part 4A Guideline: E17 Pg. 371	PI	M
	The area of a landing shall be clear of any obstruction including the path of swing of a door or a gate.	Annexure 1 Part 4A Guideline: E18 Pg. 371	PI	M
	Ramps and landings not adjacent to a wall should have an edge protection in form of a 75 mm kerb.	Annexure 1 Part 4A Guideline: E19 Pg. 371	PI	M
	At least one entrance usable by individuals in wheelchairs shall be on a level that would make the elevators accessible.	Annexure 1 Part 4A Guideline: E20 Pg. 371	PI	M
G	Gate design			
	The view of the main entrance must be uninterrupted and clear from the approach. Provision of low-level signs and planting to maintain a clear view to the entrance way.	Annexure 1 Part 4A Guideline: E20 Pg. 372	PI	M

	Minimum height of the gate should be about 1800 mm to avoid people from jumping over the gates.	Annexure 1 Part 4A Guideline: E21 Pg. 372	PI	M
	The gate handle or latch shall be installed at an accessible height for reaching, between 800 mm and 1100 mm above floor level.	Annexure 1 Part 4A Guideline: E22 Pg. 372	PI	M
	Round or oval type doorknobs are not suitable for people with mobility impairment, for people of small stature or less strength, and for children.	Annexure 1 Part 4A Guideline: E23 Pg. 372	PI	M
	Minimum manual effort should be required, as for opening and closing doors.	Annexure 1 Part 4A Guideline: E24 Pg. 372	PI	M
	Entrances should have at least a clear 1800 m passage to allow a person with stroller move easily.	Annexure 1 Part 4A Guideline: E25 Pg. 372	PI	M
	The swing of the gate should open all the way onto the open space to prevent injuries to children or people with disabilities.	Annexure 1 Part 4A Guideline: E26 Pg. 372	PI	M
	Provision of Wicket gates as rear entry points for children for ease of access and safety should be done.	Annexure 1 Part 4A Guideline: E27 Pg. 372	PI	O
	Drainage grill or cattle catchers should not be placed in front of the playground entrances. Children and people with disabilities might face discomfort as the feet of the child or the end of the walking stick might get stuck in the catchers.	Annexure 1 Part 4A Guideline: E28 Pg. 372	PI	M
	Provision of entrance design that can be recognized as a landmark with special feature about the institute.	Annexure 1 Part 4A Guideline: E29 Pg. 373	PI	O
	No obstruction and level difference in front of entrance gate	Annexure 1 Part 4A Guideline: E30 Pg. 373	PI	O
	Entrance to the public building to be on same level without hindrance for wheelchair users.	Annexure 1 Part 4A Guideline: E31 Pg. 373	PI	M
	Entrance to each building to be facilitated by ramps accompanied by handrails with multiple rods to be accessed by wheelchair users.	Annexure 1 Part 4A Guideline: E32 Pg. 373	PI	M
	Sheltered waiting area both inside and outside the public building near the entrance enables the people to wait for their guardian/ drivers/ friends etc	Annexure 1 Part 4A Guideline: E33 Pg. 373	PI	M
	Provision of dedicated pick up drop off area within 50m to	Annexure 1	PI	M

	200m from the entrance of the school, located in such a way that no vehicular conflict would occur for the toddler going to school.	Part 4A Guideline: E34 Pg. 373		
	At least one entrance usable by individuals in wheelchairs shall be on a level that would make the elevators accessible.	Annexure 1 Part 4A Guideline: E35 Pg. 373	PI	O
	All structural design/safety aspects as per latest BIS Codes & NBC, 2005 shall be complied along with consideration of weight of Fire Engine & its manoeuvrings.	Annexure 1 Part 4A Guideline: E36 Pg. 373	PBI	M
	Recognized passage and pathways leading to different facilities like transit platforms, toilets, waiting areas, drinking water point, commercials like food stalls etc.	Annexure 1 Part 4A Guideline: E37 Pg. 373	PI	M
	Provision of seating facilities for children and safe drinking water along the route	Annexure 1 Part 4A Guideline: E38 Pg. 373	PBI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Accessibility provision within the public building premises shall adhere to the standards as prescribed in Table No.-54 below:

Table No.- 54: Accessibility provision within the Public Building Premises

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	The entrances should directly connect to a continuous, dedicated, stroller-friendly walkway inside the public building if present.	Annexure 1 Part 4A Guideline: F1Pg. 374	PBI	M
	The walkway should be at least 1.5 m in width to allow a person with stroller to move easily	Annexure 1 Part 4A Guideline: F2 Pg. 374	PBI	M
	The walkway should be paved, non-slippery, levelled and should have a gradual slope towards the drain of not more than 1:50 to allow water to flow inside and prevent water logging on walkways.	Annexure 1 Part 4A Guideline: F3 Pg. 374	PBI	M
	The walkway should be provided around the activity areas or on the periphery.	Annexure 1 Part 4A Guideline: F4 Pg. 374	PI	M
	The design of the building must ensure interconnectivity	Annexure 1	PI	M

	through corridors to facilitate easy movement	Part 4A Guideline: G1 Pg. 375		
	At least one primary entrance to each building shall be usable by individuals in wheelchairs and shall be indicated by a sign	Annexure 1 Part 4 Guideline: G2 Pg. 375	PI	M
	Provision of ramps in case of level change within the building.	Annexure 1 Part 4 Guideline: G3 Pg. 375	PI	M
	Provision of toilets on each floor of education hub.	Annexure 1 Part 4 Guideline: G4 Pg. 375	PI	M
M	Provision of installation of signboards, direction boards, maps and interesting signage that give direction and identification to different facilities.	Annexure 1 Part 4 Guideline: G5 Pg. 375	PI	M
	Provision of barrier free movement -availability of lift for differently abled students to access upper floors. -Ramps with handrails in case of level change (Building entrance, corridors) -one entrance usable by individuals in wheelchairs shall be on a level that would make the elevators accessible	Annexure 1 Part 4 Guideline: G6 Pg. 375	PBI	M
	Provision of recognized passage and pathways leading to different facilities like transit platforms, toilets, waiting areas, drinking water point, commercials like food stalls etc.	Annexure 1 Part 4 Guideline: G7 Pg. 375	PBI	M
	Provision of seating facilities for children and safe drinking water along the route	Annexure 1 Part 4 Guideline: G8 Pg. 375	PI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

22. Safety provision in public building premises shall be done as following –

- i. Safety provision for approach to public building premises shall adhere to the standards as prescribed in Table No.-55 below

Table No.- 55: Safety provision for public building premises				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
(1)	(2)	(3)	(4)	(5)
A	Traffic calming measures			
	Provision of imposing limits of 15-30 km/hr in local streets	Annexure 1 Part 4B Guideline: A1 Pg. 378	PBI	M
	Provision of two-way chicane street with pavements on either side in a 12m street	Annexure 1 Part 4B Guideline: A2 Pg. 378	PI	O
	Provision of converting local streets with a carriageway of less than 6 m into a shared street.	Annexure 1 Part 4B Guideline: A3 Pg. 378	PBI	M
	Provision of sign-posted crossings or Speeds Tables for reducing the traffic speed	Annexure 1 Part 4B Guideline: A4 Pg. 379	PBI	M
	The materials selected for the surface finish shall be firm and slip resistant, especially if surfaces are likely to become wet due to location or use, or if spillage occurs. Slippery surfaces like granite, glazed tiles shall be avoided.	Annexure 1 Part 4B Guideline: A5 Pg. 379	PI	M
	As mentioned in the Accessibility section, use a natural buffer, planters or bollards that cars must drive around to slow them down further. Keep the planters low, so that small children playing or walking behind the planters are visible to oncoming traffic. The spacing between bollards to be minimum 1.2 m for single stroller to cross by. This will keep the drivers vary of the activities happening on the public realm.	Annexure 1 Part 4B Guideline: A6 Pg. 380	PI	M
	The streets with no central median, around the institution, should be a No overtaking/ Passing Zone.	Annexure 1 Part 4B Guideline: A7Pg. 380	PI	M
	Promote passive surveillance on streets by introducing visual interest through a variety of architectural detail and building materials. This will create more eyes on streets.	Annexure 1 Part 4B Guideline: A8 Pg. 380	PBI	M
	Install Pelican Signals as well as Audio Signals at major	Annexure 1	PI	M

	cross roads, junctions and table top crossings near playgrounds and institutions. Colour changing tactile strips on the curb could also make children aware when to cross the street.	Part 4B Guideline: A9 Pg. 380		
	Use of Safety signage at major junctions, to mark pedestrian streets, speed limit, pedestrian crossing, cycle tracks, landmarks such as schools, playgrounds etc. which will be further elaborated in the Legibility section.	Annexure 1 Part 4B Guideline: A10 Pg. 380	PBI	O
	If there is a vacant land parcel or a dead space within 100 m of the public building entrance, it should be converted into a resting space or an active space for children to feel safe walking past it.	Annexure 1 Part 4B Guideline: A11 Pg. 380	PBI	M
Note:				
(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI' (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'				

ii. Safety provision for public building premises entrance shall adhere to the standards as prescribed in Table No.-56 below

Table No.- 56: Safety provision for building premises entrance

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
B	Control points			
	The public building entry should be located strategically while considering the following points while designing the institution: Consider where most pedestrians will be coming from and how they will arrive at the institution. Position gates and entrances accordingly.	Annexure 1 Part 4B Guideline: C1 Pg. 381	PBI	M
	Land use and the urban form around the public building also plays an important role in determining the entrance; Placing the public building entrance on an institutional, commercial and residential street will be the most beneficial	Annexure 1 Part 4B Guideline: C2 Pg. 381	PBI	M
	More than 2 entry/ exit points should be provided only in case of transit hubs, malls or city level playgrounds. In case of school playgrounds, it is highly recommended that the entrances are limited to 2; one from within the school and one from the street.	Annexure 1 Part 4B Guideline: C3 Pg. 381	PI	M
C	Fencing			
	To retain a visual connection between the public building and the street, the fencing should be kept at 1.5 m to 2 m in height. Visually permeable fences are the most preferred such as mesh fencing or grill fencing or concrete jaali wall.	Annexure 1 Part 4B Guideline: C1 Pg. 382	PI	M

	The public building should be fenced on all sides.			
	The fence should not have a pointed spike at the end or rusted surface to prevent children from injuries.	Annexure 1 Part 4B Guideline: C2 Pg. 382	PI	M
	All the major sides of the public building should be fenced but with enough visibility outside and inside the playground.	Annexure 1 Part 4B Guideline: C3 Pg. 382	PI	M
M	Blank compound walls are not recommended.	Annexure 1 Part 4B Guideline: C4 Pg. 382	PI	M
D	Surface			
	Provision of plaza/ recessed area before the public building entrance, if any, should be well paved, well-lit and should use non-skid material. The details for recommended materials for pavement are given in the section “Child Friendly Material Palette”.	Annexure 1 Part 4B Guideline: D1 Pg. 383	PI	M
	Tactile paving should be incorporated throughout the length of the recessed area as mentioned in the accessibility section. Tactile paving should also be present in the start and the landing area of the ramps. Tactile strip should be present on the edge of each step.	Annexure 1 Part 4B Guideline: D2 Pg. 383	PI	M
	Handrails should be present on both sides of the ramp as well as the staircase on the entry point.	Annexure 1 Part 4B Guideline: D3 Pg. 383	PI	M
E	General			
	Certain openings such as fencing grills, ladder rungs etc. could present an entrapment hazard if the distance between any interior opposing surfaces is greater than 3.5 inches and less than 9 inches.	Annexure 1 Part 4B Guideline: D5 Pg. 383	PI	M
	Platforms should be generally flat	Annexure 1 Part 4B Guideline: D6 Pg. 383	PI	M
	Openings in platforms should be provided to allow for drainage.	Annexure 1 Part 4B Guideline: D7 Pg. 383	PI	M
	Platforms intended for toddlers should be no more than 0.8 m from the ground.	Annexure 1 Part 4B Guideline: D8 Pg. 383	PI	O
	Guardrails or protective barriers should be provided on elevated platforms, walkways, landings, stairways, and transitional surfaces.	Annexure 1 Part 4B Guideline: D9 Pg. 383	PI	M
	Be sure that the used materials – natural or artificial are clean and non-allergenic	Annexure 1 Part 4B	PI	M

		Guideline: D10 Pg. 383		
	Provide shaded spots where caregivers need to wait and have good sightlines	Annexure 1 Part 4B Guideline: D11 Pg. 383	PI	M
	Ensure ground to be flat, levelled and even surface.	Annexure 1 Part 4B Guideline: D12 Pg. 383	PI	M
	Look for the potential hazard in the area like low hanging branches, utility lines close to equipment or the children play area within institution	Annexure 1 Part 4B Guideline: D13 Pg. 383	PI	M
	Individual play or sports shall be fenced by natural or artificial elements.	Annexure 1 Part 4B Guideline: D14 Pg. 383	PI	O
	Use slip-resistant and skid-resistant pavers to avoid injuries.	Annexure 1 Part 4B Guideline: D15 Pg. 383	PI	M
	Ensure proper grading of the area for easy drainage.	Annexure 1 Part 4B Guideline: D16 Pg. 383	PI	M
	CCTV should be installed in the children's play area.	Annexure 1 Part 4B Guideline: D17 Pg. 383	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Safety provision within the public building premises shall adhere to the standards as prescribed in Table No.-57 below:

Table No.- 57: Safety provision within the Public Building Premises				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
	Monitoring the Institute Transport vehicles <ul style="list-style-type: none"> • Ensure at least one authorized guard on each authorized bus. • Buses to maintain a minimum speed on road. • Counting students at the time of boarding and de- 	Annexure 1 Part 4B Guideline: A1 Pg. 384	PBI	M

	<p>boarding the buses.</p> <ul style="list-style-type: none"> • Child absence track record. • Live Tracking of bus location through GPS 			
	Anti-skid tread covers for all stairs in and around the public building premises	Annexure 1 Part 4B Guideline: A2 Pg. 384	PI	M
	Anti-skid material for the areas that experience medium to high traffic like corridors, locker rooms etc.	Annexure 1 Part 4B Guideline: A3 Pg. 384	PI	M
	<p>Inclusion of emergency safety plan</p> <ul style="list-style-type: none"> • Place educational institute safety as part of education • Emergency preparedness and response plan • Institute coordination committee • Trained teachers, volunteers and staff • Disaster committee or club 	Annexure 1 Part 4B Guideline: A4 Pg. 384	PBI	M
	<p>Emotional and social safety -</p> <p>A. Clean Public Places</p> <ul style="list-style-type: none"> • Periodic cleaning and maintenance different activity zones to promote clean environment. • Cleaning the washrooms, classrooms, windows and doors periodically • Light fittings and window glazing need to be regularly monitored and cleaned to maintain efficiency • Provision of toilets at every floor to get easy accessibility. • Usage of dustbins for different types of waste material (Biodegradable/non-biodegradable/e-wastes) • Provision of clean drinking water at every floor Continuous monitoring, inspection for faults in electrical lines, plumbing lines, etc. <p>B. Improve surveillance</p> <ul style="list-style-type: none"> • Continuous monitored CCTV cameras at all major public areas of premises. • Improve lighting of classrooms, corridors, hallways, Club halls, toilets, etc. • Natural lighting: High levels of day light will reduce electrical consumption for lighting, but glare may need to be controlled by using horizontal blinds, light shelves, etc. • Artificial lighting should be of high efficiency, i.e., fluorescent or discharge lamps should be locally controlled or daylight/occupancy sensor 	Annexure 1 Part 4B Guideline: A5 Pg. 384	PI	M
	<p>Essential help desks, assistance kiosks</p> <ul style="list-style-type: none"> • Facilitating a help desk at the reception which are easily accessible from all location is important to 	Annexure 1 Part 4B Guideline: A6	PBI	M

	<p>provide assistance to children as well as their parents in case of any discrepancies.</p> <ul style="list-style-type: none"> To provide trained staffs at all corridors, toilets and other public places of frequent crowds for helping small children 	Pg. 385		
	<p>Waiting area management -</p> <ul style="list-style-type: none"> Efficient waiting area management: Provision of different staffs that manage the waiting crowd at the station, waiting areas and other public spaces. On-time Emergency services: Emergency team at every station to take immediate actions in case of any problematic/disastrous situation Active guards to be present at the station every time that protect and manage the crowd To promote Strict rules on BAC (Blood Alcohol Concentration) limits at transit hub for different age group to maintain civic discipline 	Annexure 1 Part 4B Guideline: A7 Pg. 385	PI	M
	<p>Provision of child friendly infrastructure-</p> <ul style="list-style-type: none"> Provision of Lower toilet seats for children at children toilets. Lower riser stairs with low handrails/escalators at the path dedicated for children Provision of toilets designed for male, female, children, old age/differently abled citizens. Child friendly toilet designs with lower toilet seats and washing facilities. 	Annexure 1 Part 4B Guideline: A8 Pg. 385	PI	M
	<p>Provision of active cleaning and healthy environment -</p> <ul style="list-style-type: none"> Active cleaning of the pubic area, toilets and waiting areas to promote clean and healthy environment. Maintained and smart dustbins at toilets, waiting areas and other public spaces. 	Annexure 1 Part 4B Guideline: A9 Pg. 385	PI	M
	<p>Promote safe infrastructure at public areas-</p> <ul style="list-style-type: none"> Waiting areas and public area at safe distance from power station, plumbing station, water drains, etc. Defined and discrete routes for transportation arrival and departure at a distance from waiting areas To facilitate alarms/ relief devices to protect from fire/short circuiting/ etc inside the transit hub. To promote health and hygiene safety through clean waiting areas, clean toilets, clean stalls well equipped with all type of first-aid kits and devices. Effective physical infrastructure security (Sanitation, storm water, wastewater, etc.) Child safety seats or safety vests must be secured to the bus seat in a manner prescribed and approved by the manufacturer of the safety device. The child 	Annexure 1 Part 4B Guideline: A10 Pg. 385, Pg. 386	PI	M

	restraint should not be secured on a school bus seat adjacent to an emergency exit.			
	<p>Easy access of emergency booths</p> <ul style="list-style-type: none"> • Booths placed at lower levels to be accessed by children in case of emergency • Guards and emergency action team well connected to emergency booths • Booths to be well equipped with direct emergency call numbers, telephones, control emergency switches, etc. 	Annexure 1 Part 4B Guideline: A11 Pg. 386	PI	M
	<p>An in-built and well-equipped emergency health care service</p> <ul style="list-style-type: none"> • Small emergency hospitals/first aid room with available doctors that help sick/injured passengers/children • Provision of all-time child doctors at the hospital inside the transit hub. 	Annexure 1 Part 4B Guideline: A12 Pg. 386	PBI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

23. Legibility provision in public building premises shall be done as following –

- Legibility provision for approach to public building premises shall adhere to the standards as prescribed in Table No.-58 below:

Table No.- 58: Legibility provision for approach to public building premises				
S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
(1)	(2)	(3)	(4)	(5)
A	Signage			
	<p>Appearance</p> <ul style="list-style-type: none"> • The signage boards should be easily recognizable by the use of contrasting colours, audio signals, braille markings, international symbols of accessibility (ISA – international wheelchair symbols). • The signage design should be simple and should not comprise of non-essential information, Consistency should be followed for identification, orientation and navigation with the flexibility to adapt to the theme of the parks. Height and age specific signage sizes should be designed regardless of user abilities. 	Annexure 1 Part 4C Guideline: A2 Pg. 392	PI	M

	<p>Mounting of signage</p> <ul style="list-style-type: none"> • Mounting of signage should be decided based on user group (vehicular movement, pedestrians, differently abled etc). • It can be mounted either on wall, cantilever from wall, single post, double post, overhead gantries etc. While mounting the signage, it should not overlap, overshadow any other signage, pathway, amenity or create blind spot in the immediate vicinity. It should also be checked that the sight of signage board is not obstructed, and the surface of the board is well lit. 	Annexure 1 Part 4C Guideline: A2 Pg. 392	PI	M
	<p>Text and Symbols:</p> <ul style="list-style-type: none"> • The table below specifies the size, shape and the height at which a pedestrian can read comfortably • The table below specifies the size, shape and the height at which a cyclist can read comfortably 	Annexure 1 Part 4C Guideline: A3 Pg. 392	PI	M
	<p>Provision of Wayfinding Signage</p> <ul style="list-style-type: none"> • Map of the area should show the nearest amenities as well as the routes leading the user to the amenities. • Location: Way finding maps should be installed near major landmarks. These locations include Parks, playgrounds, University campuses or nearby Schools, libraries or any other institutes, within a radius of around 500 m from a major landmark. • Information on the Map: The map should comprise of all the landmarks within 1 km radius along with the location of the map itself identifying the user's location. For providing further orientation, scale, north direction, directional arrows, locations of bus stops, bicycle & pedestrian walkway routes should be marked on the map. • Representation: Use of universal symbols and pictorial representation should be a priority. Multilingual signage board should be in English, Hindi and Odia language. The text should also be represented in braille text at 0.9 m - 1.4 m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. • Text and Positioning: The map can be framed and mounted on a wall nearby or can be a frame supported by a post with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm 	Annexure 1 Part 4C Guideline: A4 Pg. 393	PI	M

	to 12mm.		
	<p>Provision of Directional signage</p> <ul style="list-style-type: none"> This type of signage should be installed for navigating people to the parking locations, pick up drop off locations and pedestrian areas. Location: These signages should be installed at all major junctions, near landmarks, residential colony gates, schools and other public spaces. Preferably the signage should be mounted on single post or cantilevered-wall-mounted between RoW and walkways, cycle tracks or public realms adjacent to it. Information of signage: The signage should show the name of the institution, distance to the public building as well the arrows for directions. Representation: Use of universal symbols and pictorial representation should be encouraged. Multilingual signage board should preferably be in both English and Odia language. The text should be represented in braille as well at a height of 0.9 m to 1.4 m as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. Text and positioning: The position of the signage should be single post or cantilevered-wall-mounted directional signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm. 	Annexure 1 Part 4C Guideline: A5 Pg. 394	PI M
	<p>Cautionary Signage</p> <ul style="list-style-type: none"> Location: These signages should be installed at strategic locations in order to make street users vary of the important landmarks ahead. For example, "Go slow, School entrance ahead" or "Silent Zone ahead" should be installed on either side of the street at about 50 m distance from the location to provide enough time for a vehicle to bring vehicle in permissible speed limits. Preferably the signage should be mounted on a single post on the left-hand side of the moving traffic. Information of signage: The signage should show cautionary text or symbol, distance and/or directional arrows. The Following category signage should be installed at minimum. 	Annexure 1 Part 4C Guideline: A6 Pg. 395	PI M

	<ul style="list-style-type: none"> Representation: For traffic signages, IRC 067: Code of Practice for Road Signs should be followed. Use of universal symbols and pictorial representation should be encouraged. Multilingual signage board, both in English and Odia language, should be installed. Text and symbols: Preferably signage should be single post signage with long viewing distance for vehicles from 12 m to 50 m, the text size may range between 50 mm to 150 mm. 		
B	Road markings		
	Road markings help in demarcating different uses, level differences to bring in a behavioural change in use of space and caution people of the context.	Annexure 1 Part 4C Guideline: B1 Pg. 396	PI M
	Tactile pavers: The tactile pavers should be used along all the walkways for navigating visually challenged person on pathway, for understanding direction, direction change, level difference, intersections, stoppage, or refuge etc.	Annexure 1 Part 4, 3.1 Guideline: B2 Pg. 396	PI M
	Use of reflective strips: Cat eye and/or reflective strips should be used on the edges of the Right of Way. Botts' dots can be used on the edges of cycle tracks, walkways and at all the locations with level difference.	Annexure 1 Part 4C Guideline: B3 Pg. 396	PI O
	Other markings such as floor markings for Sharrow (Shared RoW for bicycles) should be painted with thermoplastic paints. Cold rolled or glued down plastic strips with the adhesive in the backing are used for cross walks, commonly referred to as "tape" or "cold plastic," this product is heavy grade material with reflective beads embedded in the plastic. This method is used to mark the stop lines on bituminous roads in high density urban areas. These should be used in well-lit area to maintain the reflectivity of the markings at the desirable level.	Annexure 1 Part 4C Guideline: B4 Pg. 396	PI M
	Sidewalk + Cycle track: Side walkways and cycle tracks should be clearly demarcated either by providing a level difference or by marking it with thermoplastic colours. In case of a shared street, the cycle track should be painted with a dedicated colour approved by CRUT along with the cycle icon painted at 40 m every interval. The edges of walkways should be marked with a 10 cm continuous white band along	Annexure 1 Part 4C Guideline: B4 Pg. 396	PBI M

	the track.			
C	Public art			
	<p>Public art to be used to create landmarks that will provide micro level identity.</p> <p>Location: Public art can be used at already existing prominent place or to bring forward a passive space as a landmark to identify and navigate oneself. The spaces can be identified from nearby squares, compound or public building walls, bollards, barricading, major or shortest routes to park, public utility surfaces etc.</p>	Annexure 1 Part 4C Guideline: C1 Pg. 397	PI	M
	<p>Material:</p> <ul style="list-style-type: none"> • The painted art work should be coated with Anti-Graffiti paint wherever necessary for durability, compliance and impermanence. • Use of other materials such as tiles, reuse of waste materials, adaptive reuse that are durable, low maintenance, non-toxic/harmless, easy & effective for installation should be preferred and encouraged. 	Annexure 1 Part 4C Guideline: C2 Pg. 397	PI	M
	<p>Content of artwork:</p> <p>The art work should not only add aesthetical value to surroundings but also should have functional aspect to it to improve physical and social quality. Preferably it should be relevant to the surroundings and complementary to the theme of the public building or outdoor lifestyle.</p>	Annexure 1 Part 4, 3.1 Guideline: C3 Pg. 397	PI	M
	The artwork should not preferably contain branding of intoxicating or addictive products, offensive language, explicit images and should be approved by the Municipal Commissioner of Bhubaneswar Municipal Corporation.	Annexure 1 Part 4C Guideline: C4 Pg. 397	PI	M
D	Street and pathway lighting:			
	<p>The type of light should be selected as per the location and purpose in the area. The light fixtures, broadly, is of three types namely</p> <ul style="list-style-type: none"> • high-mast lights for major squares and plazas, • light posts for cycle tracks, public utilities, PT & IPT stands etc. • Walkway lights for overall public realm. 	Annexure 1 Part 4C Guideline: D1 Pg. 398	PI	M
	The use of high mounting heights has many advantages: The lights produce better uniformity, are less glaring and less likely to cause confusion with signal lights.	Annexure 1 Part 4C Guideline: D2 Pg. 398	PI	M
	In important areas such as pedestrian crossings and tabletop junctions, light should be received from at least two different directions and from two or more sources to reduce harsh shadows and minimize the effect of a single lamp outage.	Annexure 1 Part 4C Guideline: D3 Pg. 398	PI	M
	To avoid any glare for easy and safe movement of vehicles, bicycles and pedestrians especially of walkway light posts,	Annexure 1 Part 4C	PI	M

	the placement of the lights should be strategic to negate blind or dark spots.	Guideline: D4 Pg. 398		
	Ornamental lighting can be used to create a pleasing visual environment.	Annexure 1 Part 4C Guideline: D5 Pg. 398	PI	M
	For paved areas, Lights should be placed at every 20 m (min) interval to ensure well illuminated route.	Annexure 1 Part 4C Guideline: D6 Pg. 398	PI	M
	Care should be taken to select the right combination of lamp, luminaire, and mounting system to fulfil the lighting requirements. Light fixtures of following specifications for post lamps and walkways should be used.	Annexure 1 Part 4C Guideline: D7 Pg. 398	PI	M
E	Road landscape			
	Types of trees used for public realm should be selected as per the placement	Annexure 1 Part 4C Guideline: E1 Pg. 399	PI	M
	Location: Hedges, Low height bushy trees, Long screening trees	Annexure 1 Part 4, 3.1 Guideline: E2 Pg. 399	PI	M
	Median plantation of 0.6 m to 0.8 height such as hedges act as a screen to protect street users from the glare of vehicular lights.	Annexure 1 Part 4C Guideline: E3 Pg. 399	PI	M
	Low hanging branches of trees should not create obstructions in the movement of people. The trees planted on the buffer, between bicycle tracks and walkways should have a visual clearance of about 0.6m to 2.5 m height. Trees of height 2 to 2.5m with a larger canopy should be selected for natural shading and clearance. Hedges planted should have a maximum height of 2.6 m.	Annexure 1 Part 4C Guideline: E4 Pg. 399	PI	M
	Dense plantation, if necessary, should be restricted towards the edges of the Right of Way.	Annexure 1 Part 4C Guideline: E5 Pg. 399	PI	M
F	Traffic lights pelican signal:			
	Placement of traffic signals should such that they should be visible from a distance of minimum 40m. The lights should not be obstructed by any type of permanent or temporary type of installations, landscape elements, buildings etc.	Annexure 1 Part 4C Guideline: F1 Pg. 399	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

ii. The public building premises entrance shall adhere to the standards as prescribed in Table No.- 59

Table No.- 59: Public Building Premises Entrance				
S.No	CHILD FRIENDLY GUIDELINES	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
G	SIGNAGES			
	<p>Public Building Premises Entrance Board:</p> <ul style="list-style-type: none"> Location: The entrance board should be located at the most prominent location preferably on the right-hand side of the entrance gate so as to ensure legibility for both pedestrians and vehicles. Information on Signage: The public building premises entrance board should contain the name of the public building in bold and clear letters along with operating timings, development, maintaining authority and brief about the public building Representation: Multilingual signage board preferably in both English and Odia language. Also, the text should be represented in braille as well at a height of 0.9m to 1.4m as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The board should preferably be mounted on a compound wall near the entrance gate of the public building. Instead of one board, two different boards can be installed on either side of the public building entrance. Text and symbol: The text of public building name should be for long distance viewing from 20 to 40 m. Rest of the text can be for short distance viewing. From 6 to 12m. If separate gates are provided for entry and exit of pedestrians as well as at the entry points of parking area, it should be clearly mentioned on the doorways. 	Annexure 1 Part 4C Guideline: G1 Pg. 400	PI M	
	<p>Map of institution:</p> <ul style="list-style-type: none"> Location: The map of the public building should be placed either at the entrance recessed area or immediately after entering the public building from the gate. It should be placed in such a way that it would not obstruct view of park, or any other object should not overshadow it. Information on the Map: The map should show basic zoning, pathways, activity areas, public utilities, other entry & exists, assembly points, emergency 	Annexure 1 Part 4C Guideline: G2 Pg. 401	PI M	

	<p>routes along with the location of the map itself (you are here). For providing further orientation, scale, north direction, directional arrows should be marked on the map.</p> <ul style="list-style-type: none"> Representation: Use of universal symbols and pictorial representation should be done as much as possible. Multilingual signage board preferably in English, Hindi and Odia language. Also, the text should be represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The Map size shall vary between 1.8 x 1.8 sq.m to 2.4 x 3 sq.m. Text and symbols: Preferably map should be wall or frame/screen mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 20mm to 12mm. 			
H	LIGHTING			
	The entrance and exit of the park, should be well lit. Light posts should be selected as per the size of foyer, entrance gate and overall scale of the entry. The public building entrance should have a minimum lux of 20 lux. The temperature of it can vary from 3000 to 3500k providing a glare free luminacins.	Annexure 1 Part 4C Guideline: H1 Pg. 402	PI	M
G	TACTLIE PAVING			
	The tactile pavers should be used along all the walkways for navigating visually challenged person on pathway, for understanding direction, direction change, level difference, intersections, stoppage, or refuge etc.	Annexure 1 Part 4C Guideline: I1 Pg. 402	PI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Within the public building premises shall adhere to the standards as prescribed in Table No.-60

Table No.- 60: Within the Public building premises

S.No	CHILD FRIENDLY GUIDLEINES	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
A	SIGNAGES			
	Directional signage:	Annexure 1 Part 4C	PI	M

	<ul style="list-style-type: none"> Location: The directional signage should be installed at all the walkway junctions and at the entry points of active or passive zones. Information on Signage: These signage boards should contain all names of all zone entries in the immediate vicinity of 50m to 100 m. These should be accompanied by directional arrows for further navigation. Also, nearest utility availability should be marked on it with the help of universal symbols. Representation: Multilingual signage board preferably in English and Odia language. Also, the text should be represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed in Modern Building Bye Laws 2016 by MoHUA. The board should be preferably mounted on compound wall near entrance gate of park. Instead of one board, two different boards can be installed on either side of the public building entrance. Text and symbol: These should be single or double post mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm to 12mm. 	Guideline: K1 Pg. 403		
	<p>Informative signage:</p> <ul style="list-style-type: none"> Location: These boards should be located at the entrance point of important active and passive zones of the playgrounds. Information on Signage: Name of the zone along with general information about the zone should be written on the boards. Also, how to use the equipment or games, if any, should also be added to the board. These boards can be installed near the equipment. For children play area, pictorial representation of games as compiled in Child Play Book by BUKC can be drawn on passive walls or boards depicting how to play these games. Representation: Multilingual signage board preferably in English and Odia language. Also, as mentioned in the earlier section the boards should be both represented in pictures/ drawings as well as text. Preferably these types of boards can be mounted directly over the floor and can have a height of 1.2 to 1.5m from floor height. The text should be represented in brail text at lower level ranging from 0.9m to 1.4m height as per the standards prescribed 	Annexure 1 Part 4C Guideline: K2 Pg. 404	PI	M

	<p>in Modern Building Bye Laws 2016 by MoHUA.</p> <ul style="list-style-type: none"> Text and symbol: These should be single or double post mounted informative signage with shorter viewing distance up to 6 m to 3 m, the text size may range between 25mm to 12mm. Already developed and established signage designs by BMC should be adopted inside the public building premises 		
	<p>Cautionary Signage:</p> <ul style="list-style-type: none"> Location: These signages should be installed at strategic locations to provide warnings E.g., 'Steps ahead' or 'Do not spit' etc. Preferably the signage should be mounted on single post or installed on the barricading on the edges of walkways. Information of signage: The signage should show cautionary text or symbol, distance and/or directional arrows. The Following category signage should be installed at minimum. Representation: signage plaques should be used following the similar language of signage designed by BMC. The size of these plaques can range between 45cm X 25cm to 60cm X 25cm. Text and symbols: Preferably signage should be single post signage with long viewing distance for vehicles from 12m to 50 m, the text size may range between 5mm to 15mm. 6 m to 3 m, the text size may range between 25mm to 12mm. Installation of signage should be done carefully considering the orientation and light posts in the immediate vicinity. The signage installed should be well lit. Emergency exit markers and assembly points 	Annexure 1 Part 4C Guideline: K3 Pg. 405	PI M
B	FLOOR MARKINGS		
	<p>Wayfinding signage can also be achieved through markings on the floor of walkways. With the help of appropriate symbols, navigation for people on wheelchair or with stroller can be facilitated through ramps avoiding steps and steep level differences. Similar way cycle tracks, if proposed in the park should be clearly demarcated with paint on the floor.</p>	Annexure 1 Part 4C Guideline: L1 Pg. 406	PI M

	Representation: General guide markings on floors can be represented by drawing universal symbols of wheelchair, footsteps, arrows, steps ahead marking etc.	Annexure 1 Part 4C Guideline: L2 Pg. 406	PI	M
C	LIGHTING			
	A special care should be taken against theft and vandalism while installing the light fixtures.	Annexure 1 Part 4C Guideline: M1 Pg. 407	PI	M
	The lighting fixture plan should be prepared in accordance with the planting plan to avoid any overshadowing of areas or to ensure lighting is not hindered by the vegetation's canopy.	Annexure 1 Part 4C Guideline: M2 Pg. 407	PI	M
	All the accessible areas should be well lit with minimum illumination of 10 lux, whereas passive areas should have a minimum illumination of 5 lux at all times.	Annexure 1 Part 4C Guideline: M3 Pg. 407	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

24.Environment in public building premises-

i. The entry to public building premises shall adhere to the standards as prescribed in Table No.- 61 below:

Table No.- 61: Entry to the public building premises

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/optional
	Kindly refer to environment: entry to the playground from child friendly public space guidelines for referring to - <ul style="list-style-type: none"> • Aesthetic, • Public art, • Street furniture, • Landscape 	Annexure 1 Part 4D Guideline: A1 Pg. 410	PI	M
	Street art on the blank boundary wall to give a unique identity to the institution	Annexure 1 Part 4D Guideline: A2 Pg. 410	PI	M
	Using informative signages on the boundary wall to give a	Annexure 1	PI	M

	unique identity as shown in the images	Part 4D Guideline: A3 Pg. 410		
	The streets adjoining institutions should be declared silence zone or no honking zones.	Annexure 1 Part 4D Guideline: A4 Pg. 410	PI	M
	The street edges facing public building should be treated with sound pollution mitigation barriers such as: <ul style="list-style-type: none"> • Landscaped earth mounds, hedges, dense foliage trees, Perforated boundary or fencing surfaces, speed breakers and barriers to lower the speed before the zone starts • As per the climatic conditions, open spaces must have the natural tree shade and plantations 	Annexure 1 Part 4D Guideline: A5 Pg. 410	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. Public building entrance shall adhere to the standards as prescribed in Table No.-62 below:

Table No.- 62: Public building Entrance				
S.No	CHILD FRIENDLY GUIDELINES	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
A	AESTHETICS			
	Entrance of the public building should be welcoming and a landmark. The same can be achieved through different elements such as ornamental trees, wall art, appropriate gate designs etc.	Annexure 1 Part 4D Guideline: B1 Pg. 410	PI	M
	Colour palette should be finalized for each playground as per the activities in the playground. The decided colour palette should be followed throughout the park as per specifications and designs provided by Landscape Architects.	Annexure 1 Part 4D Guideline: B2 Pg. 410	PI	M
	The entrance foyer should have sufficient space on	Annexure 1	PI	M

	either side of the gate as specified in the Chapter I; Parks and Open spaces, Section A: Accessibility. The clear area should have least features obstructing the movement as well as view of the playground.	Part 4D Guideline: B3 Pg. 410		
	<p>Elements of experience impacting children psychology should be incorporated starting from the entrance.</p> <ul style="list-style-type: none"> Elements with different colour, textures, making different soothing sound should help stimulate the sight, hearing abilities, touch senses of children. Compound walls can be made up of brick jail brick jail curvilinear walls with cut outs to play with natural day light and shadow, bamboo curtains etc. Colour palette should be finalized for each public building as per the overall design of the building 	Annexure 1 Part 4D Guideline: B4 Pg. 410	PI	M

Note:

(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'

(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

iii. Within the public building premises shall adhere to the standards as prescribed in Table No.-63 below:

Table No.- 63: Within the Public building premises

S.No	Description	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
A	EDUCATIONAL INSTITUTION			
	Provision of space for conducting different programs- Model/ sculpture making, Dance/ Drama/ Singing/ instrument Competitions.	Annexure 1 Part 4D Guideline: A1 Pg. 411	PI	M
	Street plays, nukkad natak on specific awareness themes	Annexure 1 Part 4D Guideline: A2 Pg. 411	PI	O
	Essay, article writing/ Public speaking/ quiz competitions	Annexure 1 Part 4D Guideline: A3 Pg. 411	PBI	O
	Organizing book fair/Science fair/ science exhibitions etc.	Annexure 1 Part 4D Guideline: A4 Pg. 411	PBI	O

	Taking part in various Olympiads, NTSEs, KVPYs, English proficiency, world of facts Olympiad, etc.	Annexure 1 Part 4D Guideline: A5 Pg. 411	PBI	M
	Celebrating and conducting activities on various festivals and important days like Republic day, Independence Day, World Earth's day, World's food day, International day of the girl child, international yoga day, international dance day, World Heritage Day, world environment day, ester day, etc.	Annexure 1 Part 4D Guideline: A6 Pg. 411	PBI	M
	Conducting and organizing an innovation challenge at different fields like science, sustainability, environment, architecture, gaming, Physical science, mathematics, Biological science, Chemical science etc.	Annexure 1 Part 4D Guideline: A7 Pg. 411	PBI	M
	Conducting guest lecture	Annexure 1 Part 4D Guideline: A8 Pg. 411	PBI	M
	Provision of smart class- Provision of user-friendly e-portal service giving	Annexure 1 Part 4D Guideline: A9 Pg. 411	PI	M
	access to all information regarding current marks, marksheets, attendance statistics, details about homework requirements, announcements and other important updates.	Annexure 1 Part 4D Guideline: A10 Pg. 411	PI	M
B	Transit Hub			
	Provision of waiting area shall be reserved for families with small children at the transit hub.	Annexure 1 Part 4D Guideline: B1 Pg. 411	PI	M
	Availability of staffs and caretakers, assistants at the child specific waiting areas.	Annexure 1 Part 4D Guideline: B2 Pg. 411	PBI	M
	Playful equipment to engage small children at	Annexure 1 Part 4D Guideline: B3 Pg. 411	PI	M
	Provision of safe waiting areas monitored through CCTV	Annexure 1 Part 4D Guideline: B4 Pg. 411	PI	M
	Provision of safe baby sitters at the waiting areas and platforms in case of any emergency.	Annexure 1 Part 4D Guideline: B5 Pg. 411	PI	O
	Provision of safe Lactation booths at waiting areas and frequent accessible locations inside the hub.	Annexure 1 Part 4D Guideline: B6 Pg. 411	PI	M

	Interior Design and anthropometry considerations	Annexure 1 Part 4D Guideline: B7 Pg. 411	PI	M
	Staffs and caretakers, assistants at the child specific waiting areas.	Annexure 1 Part 4D Guideline: B8 Pg. 411	PI	M
	Follow the general guidelines from child friendly public space general guidelines for toilet rooms and sanitary rooms	Annexure 1 Part 4D Guideline: B1 Pg. 411	PI	M
C	Healthcare			
	Access to healing gardens or meditation garden	Annexure 1 Part 4D Guideline: C1 Pg. 411	PI	M
	Providing art work that depicts nature like sky tiles or scenes that interest children	Annexure 1 Part 4D Guideline: C2 Pg. 411	PI	M
	Create healing environment through music programming	Annexure 1 Part 4D Guideline: C3 Pg. 411	PI	M
	Ensure view of nature from waiting lobby, patients' room, other high stress areas	Annexure 1 Part 4D Guideline: C4 Pg. 411	PI	M
D	Closed Recreational Spaces			
	Interior Design and anthropometry considerations which are safe and non-harmful in nature.	Annexure 1 Part 4D Guideline: D1 Pg. 411	PI	M
	Provision of safe emergency exit for people carrying infants	Annexure 1 Part 4D Guideline: D2 Pg. 411	PI	M
	Playful equipment to engage small children at waiting areas.	Annexure 1 Part 4D Guideline: D3 Pg. 411	PI	M
	Provision of interactive flooring patterns and seats in waiting and food area	Annexure 1 Part 4D Guideline: D4 Pg. 411	PI	M

Note:

- (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
- (ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

25. Learn provision in public building premises shall be done as following –

i. The entry to the institutions shall adhere to the standards as prescribed in Table No.-64 below:

Table No.- 64: Approach to the Institution

S.No	CHILD FRIENDLY GUIDELINES	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
A	General Guidelines			
	Create active facade through public art along the routes to the public building to give a look and feel of entering the institutional zone	Annexure 1 Part 4E Guideline: A1 Pg. 414	PI	M
	Incorporate creative mapping, interactive wayfinding in the sidewalks (like 6 more steps to reach bus stop) to highlight key sites and create outstanding and effective visual communication for children.	Annexure 1 Part 4E Guideline: A2 Pg. 414	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

ii. The public building premises entrance shall adhere to the standards as prescribed in Table No.- 65 below:

Table No.- 65: Public Building Premises Entrance

S.no	Description	Reference in annexure 1	Type of intervention	Mandatory/ optional
	Tape or paint various shapes on the floor to show at least 1-2 m spacing for maintaining social distancing and this also provides a visual indicator that helps in body awareness.	Annexure 1 Part 4E Guideline: A1 Pg. 414	PI	M
	Providing natural or artificial queue manager	Annexure 1 Part 4E Guideline: A2 Pg. 414	PI	M
	Provide audio-visual signage or digital kiosk showing greeting quotes or social messages “Greet everyone with a smile”; “Wish people around you a happy day”,	Annexure 1 Part 4E Guideline: A3	PI	M

	you are here maps, any educational general information for kids, etc.	Pg. 414		
	Posting colourful, informative and enlarged maps with areas of interest at playground entrances, within the boundaries of the public building and along set distances of pathway.	Annexure 1 Part 4E Guideline: A4 Pg. 414	PI	M
	The entrance should have a guard room which acts as a help desk for children.	Annexure 1 Part 4E Guideline: A5 Pg. 414	PI	M
	The help desk should provide pamphlets, small brochures about the public building other special	Annexure 1 Part 4E Guideline: A6 Pg. 414	PI	M
<p>Note:</p> <p>(i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'</p> <p>(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'</p>				

iii. The public building entrance shall adhere to the standards as prescribed in Table No.-66 below:

Table No.- 66 Within Public building				
S.No	CHILD FRIENDLY GUIDELINES	REFERENCE IN ANNEXURE 1	TYPE OF INTERVENTION	MANDATORY/ OPTIONAL
A	EDUCATIONAL INSTITUTE			
	Tape or paint various shapes on the floor to show at least 1-2 m spacing for maintaining social distancing and this also provides a visual indicator that helps in body awareness.	Annexure 1 Part 4, 5.3 Guideline: A1 Pg. 415	PI	M
	Providing natural or artificial queue manager	Annexure 1 Part 4, 5.3 Guideline: A2 Pg. 415	PI	M
	Posting colourful, informative and enlarged maps for wayfinding and educating about the spaces	Annexure 1 Part 4, 5.3 Guideline: A3 Pg. 415	PI	M
	Include the local community, artists and residents for various art installations and other workshops	Annexure 1 Part 4, 5.3 Guideline: A4 Pg. 415	PI	M
	Use of interactive games, symbols, alphabets on the flooring	Annexure 1 Part 4, 5.3 Guideline: A5 Pg. 415	PI	M

B	Transit hub			
	Audio video set-ups that display relevant information, cartoons, etc to keep children busy	Annexure 1 Part 4, 5.3 Guideline: B1 Pg. 415	PI	M
	Posting colourful, informative and enlarged maps for wayfinding and educating about the spaces	Annexure 1 Part 4, 5.3 Guideline: B2 Pg. 415	PI	M
	Include the local community, artists and residents for various art installations and other workshops	Annexure 1 Part 4, 5.3 Guideline: B3 Pg. 415	PI	M
	Provision of infographics, posters, wall art and arts that distract children and also provide visual improvement in environment	Annexure 1 Part 4, 5.3 Guideline: B4 Pg. 415	PI	M
	Playful equipment to engage small children at waiting areas.	Annexure 1 Part 4, 5.3 Guideline: B5 Pg. 415	PI	M
C	Healthcare			
	Providing art work that depicts nature like sky tiles or scenes that interest children	Annexure 1 Part 4, 5.3 Guideline: C1 Pg. 415	PI	M
	Using artwork to generate awareness about the general equipment used in a hospital , about human body and habits	Annexure 1 Part 4, 5.3 Guideline: C2 Pg. 415	PI	M
	Create healing environment through music programming	Annexure 1 Part 4, 5.3 Guideline: C3 Pg. 415	PI	M
D	Closed recreational spaces			
	Provision of interactive flooring patterns and seats in waiting and food area		PI	O
E	Housing			
	Provision of interactive games through flooring in common areas		PI	O

Note: (i)The fourth column in the table refers to two types of interventions: (a) Policy Based Interventions denoted by 'PBI' (b) Physical Interventions denoted by 'PI'
(ii) The fifth column in the table refers to the importance of the guideline by assigning mandatory denoted by 'M' or optional guideline denoted by 'O'

By Order of the Authority

BISWARANJAN RATH
Secretary
Bhubaneswar Development Authority
Bhubaneswar